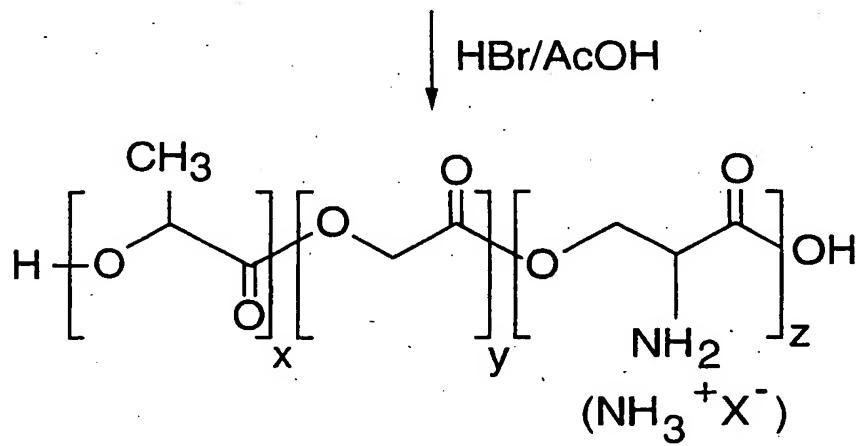


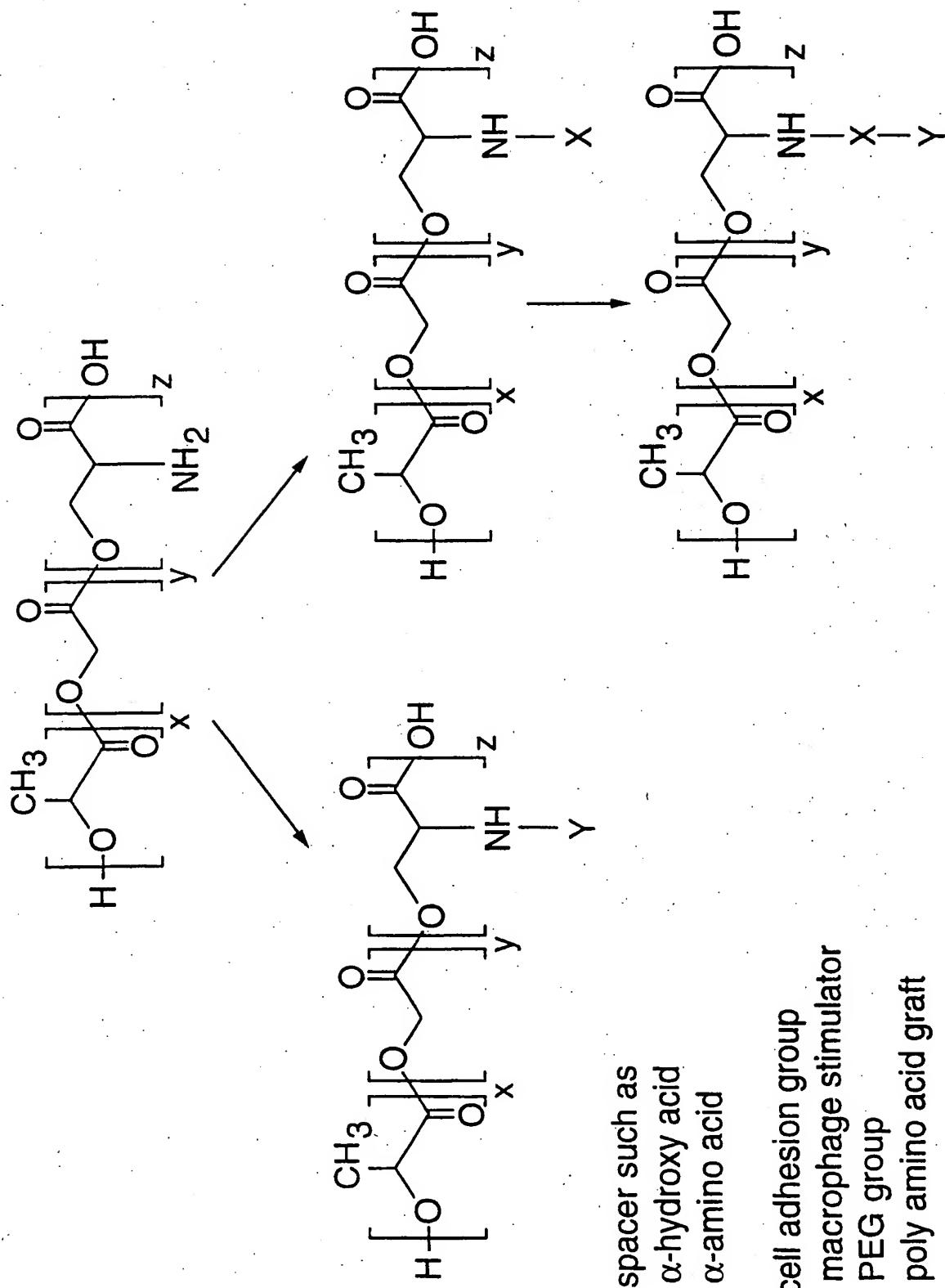
Poly-D,L-Lactide-co-Glycolide-co-pseudo-L-Z-Serine Ester (PLGpZS)



Poly-D,L-Lactide-co-Glycolide-co-pseudo-L-Serine Ester (PLGpS)

FIG. 1

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X =spacer such as
 α -hydroxy acid
 α -amino acid

Y = cell adhesion group
macrophage stimulator
PEG group
poly amino acid graft

FIG.2

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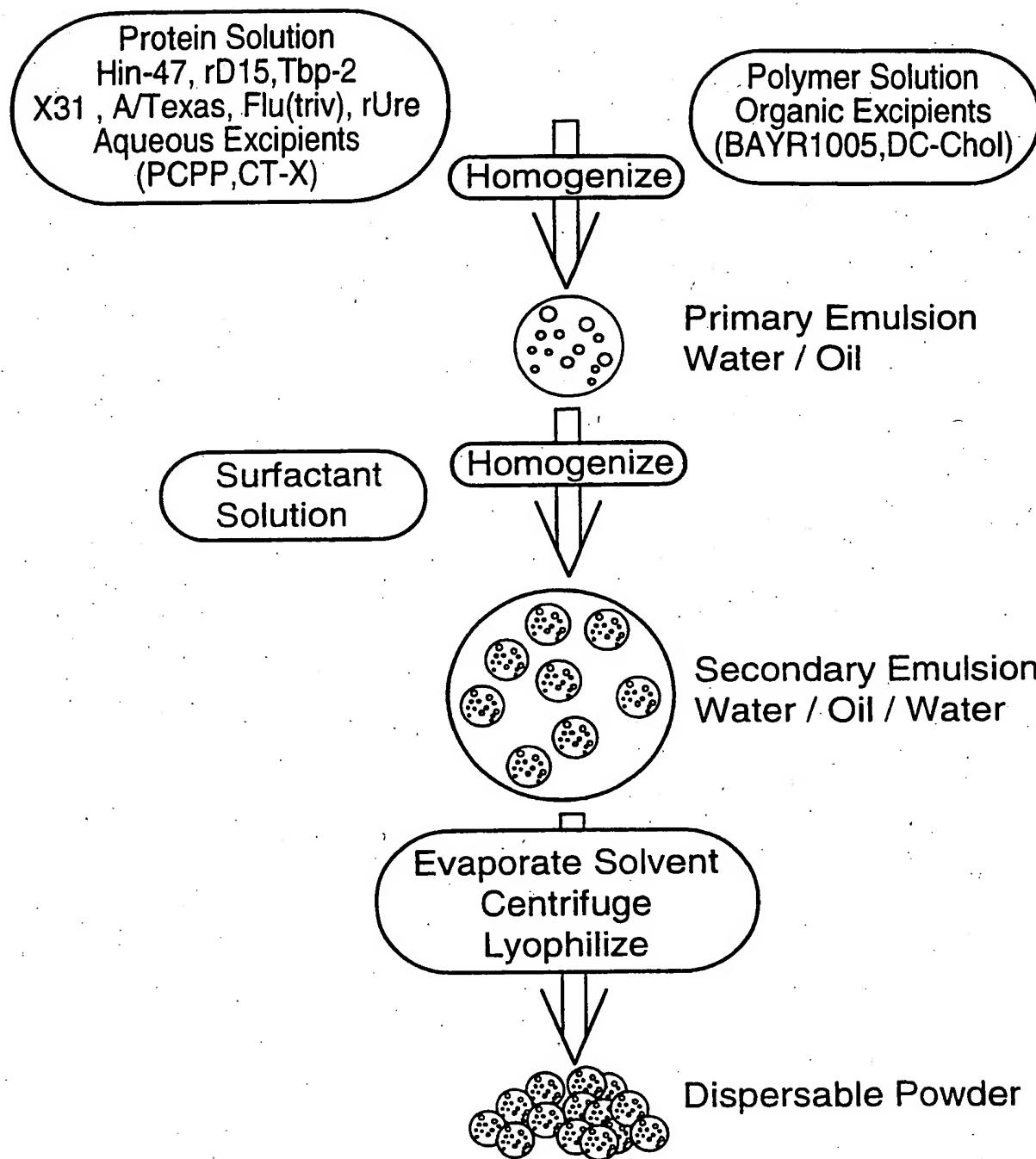


FIG.3

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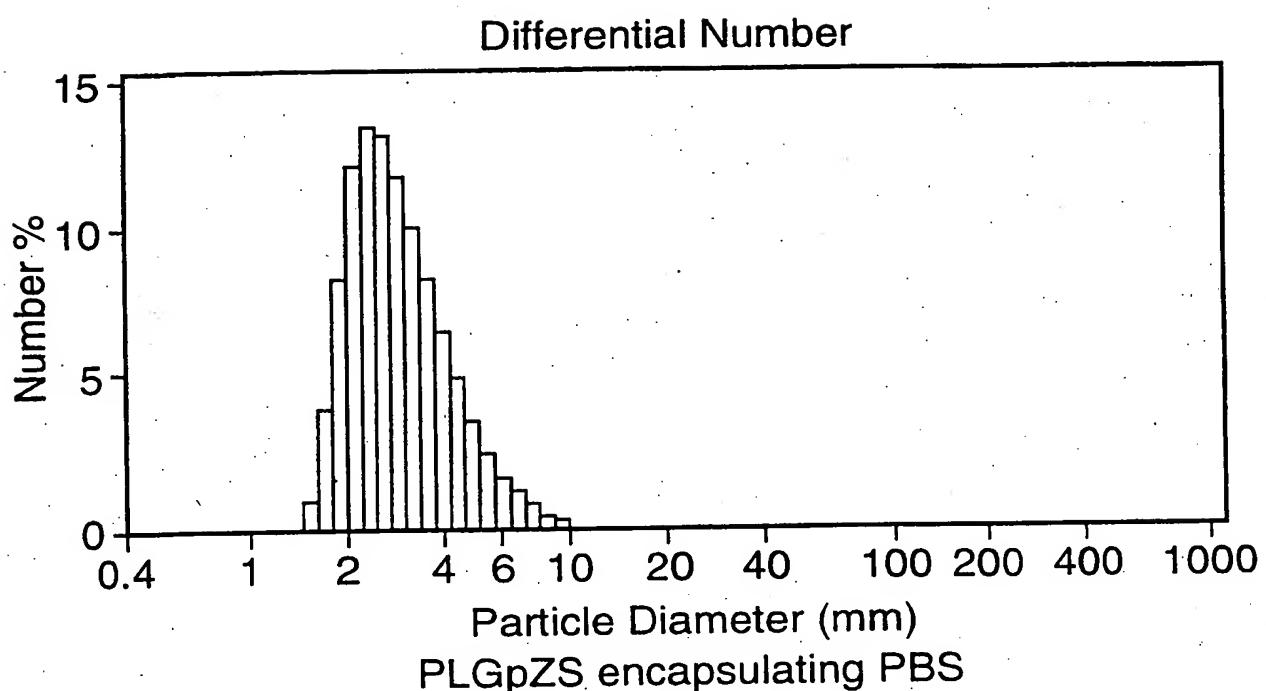


FIG.4A

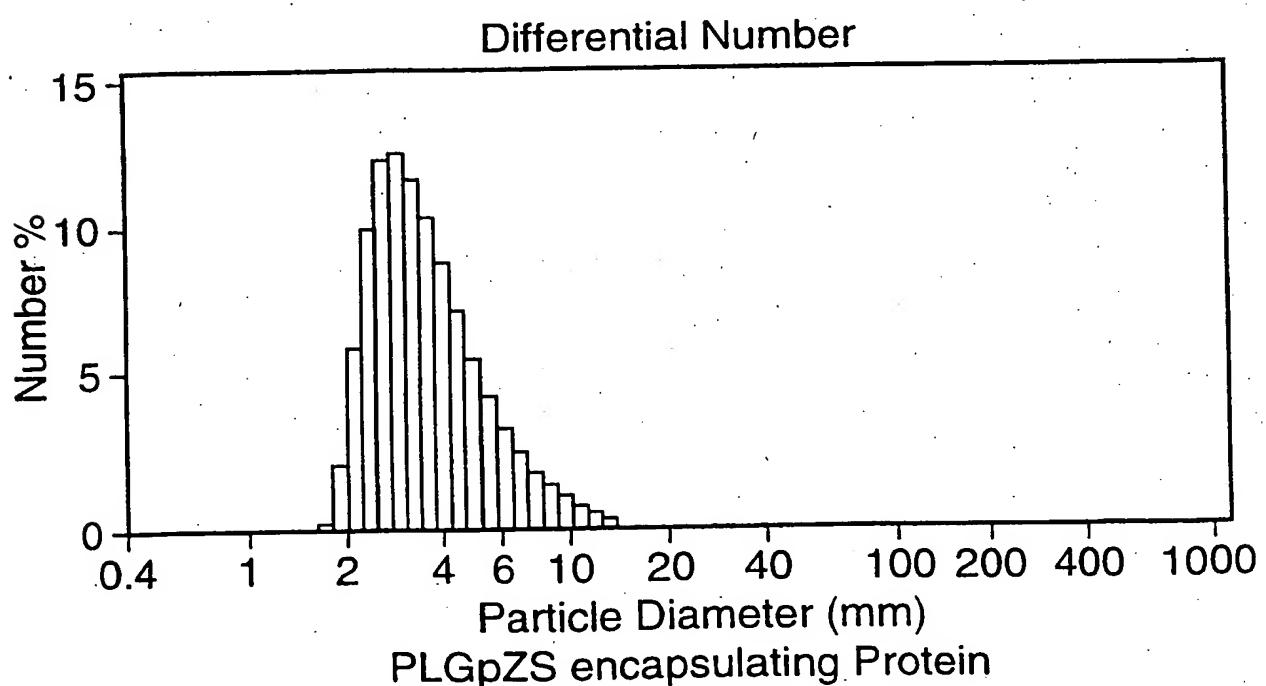


FIG.4B

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Differential Number

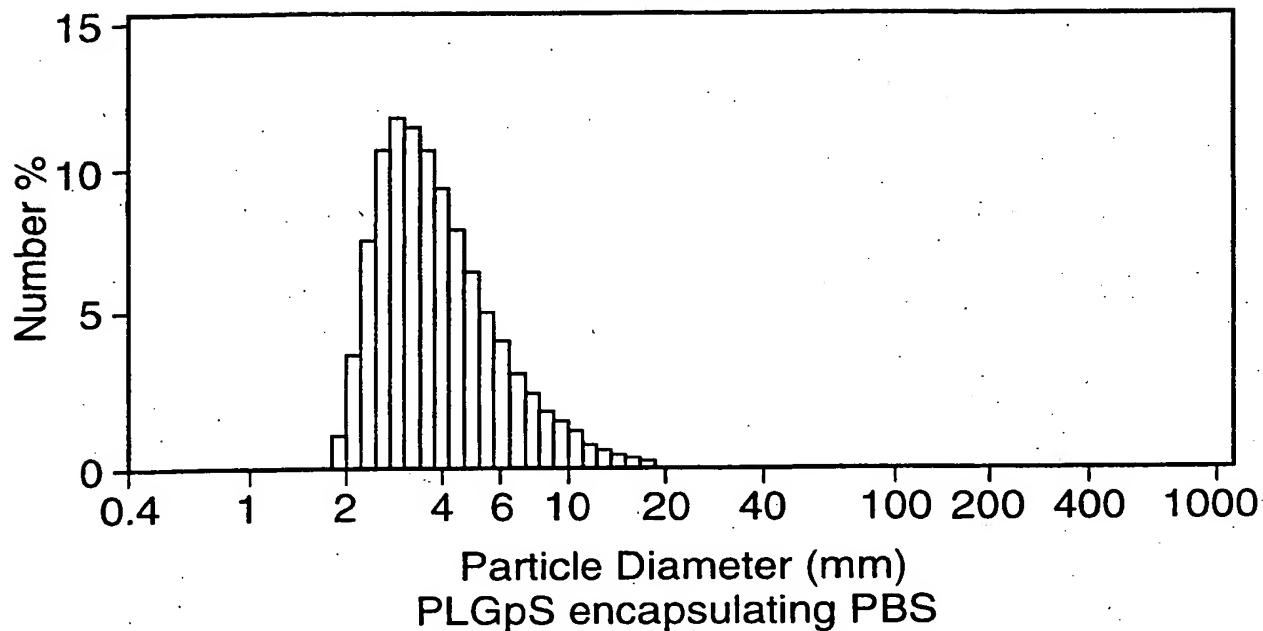


FIG.4C

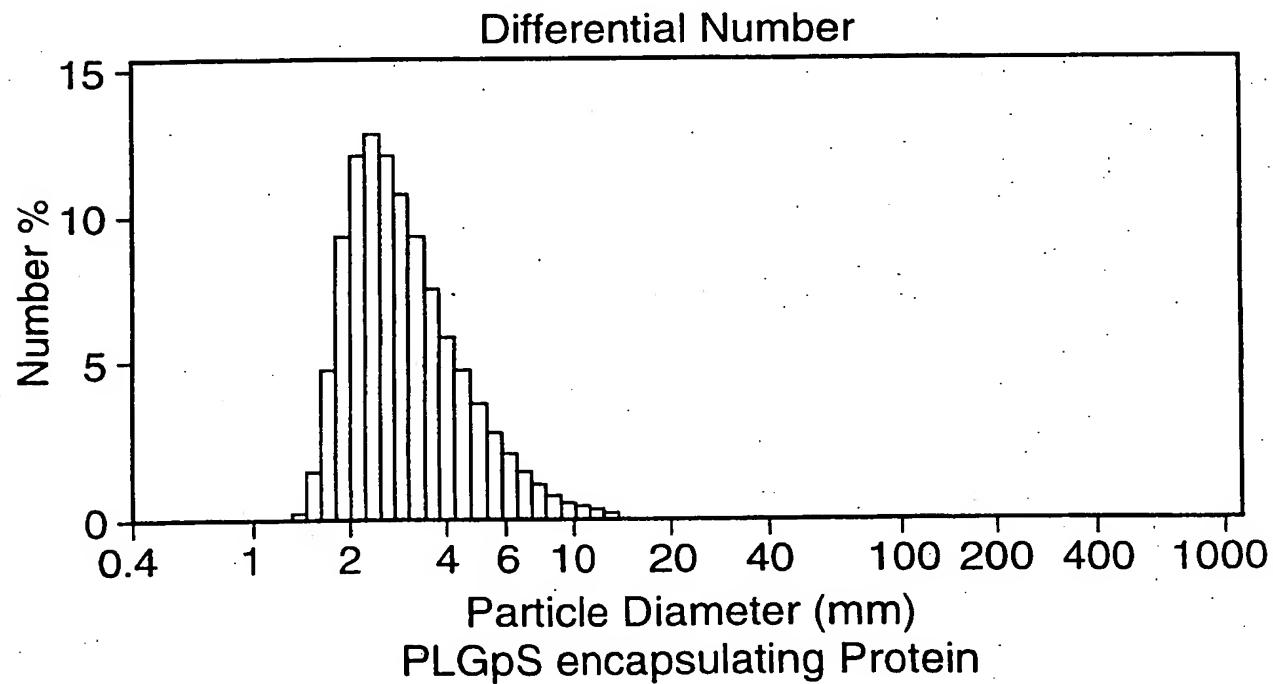
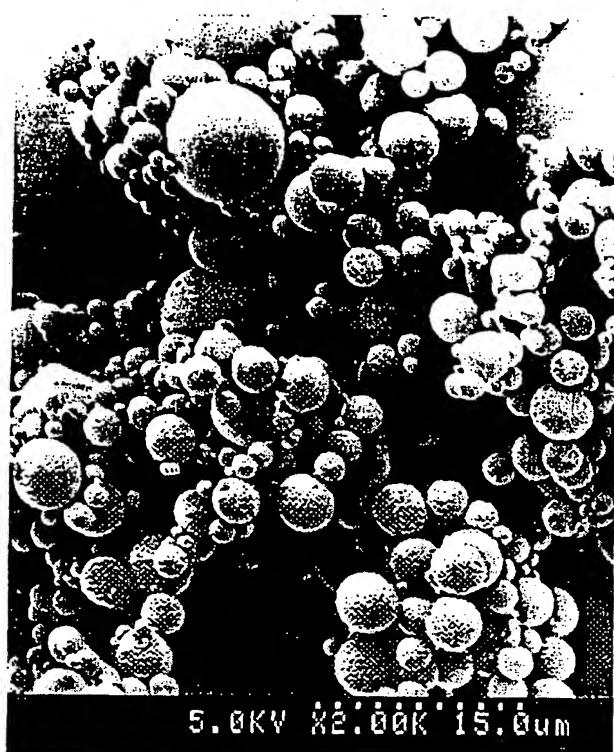


FIG.4D

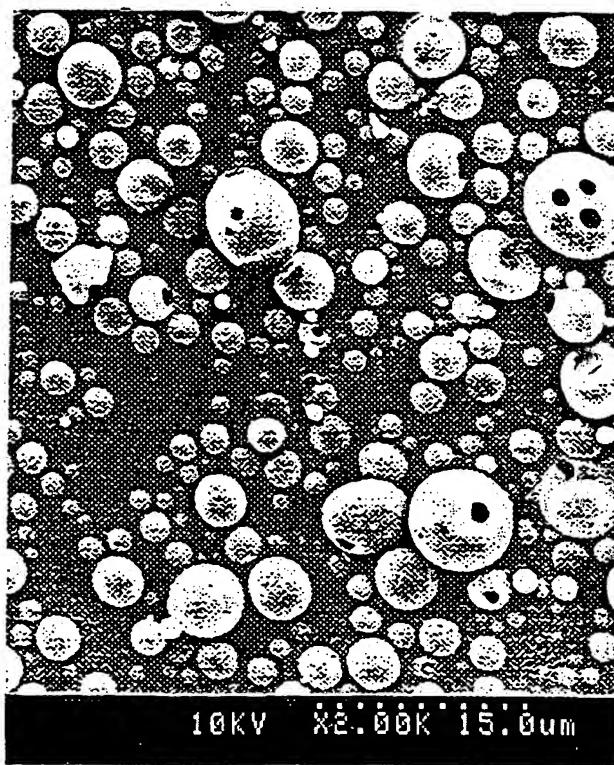
6(a)/36

FIG.5A



PLGpZS encapsulating PBS

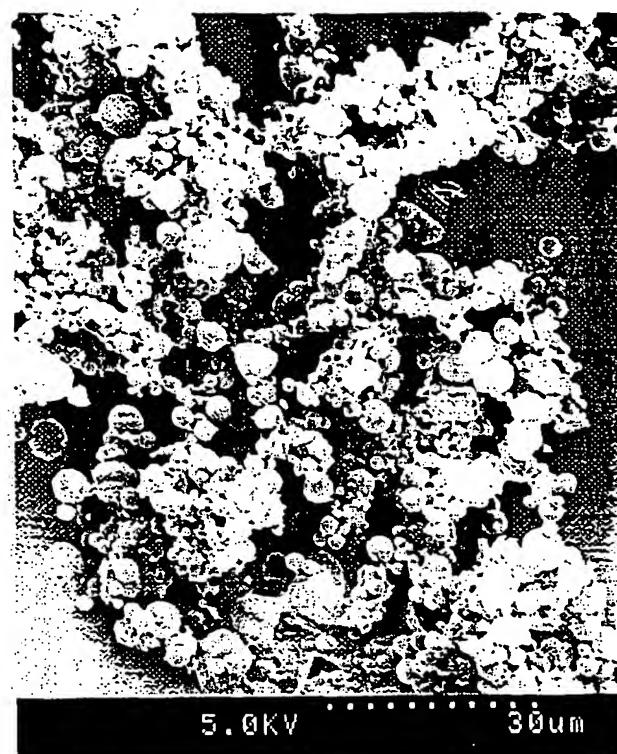
FIG.5B



PLGpS encapsulating PBS

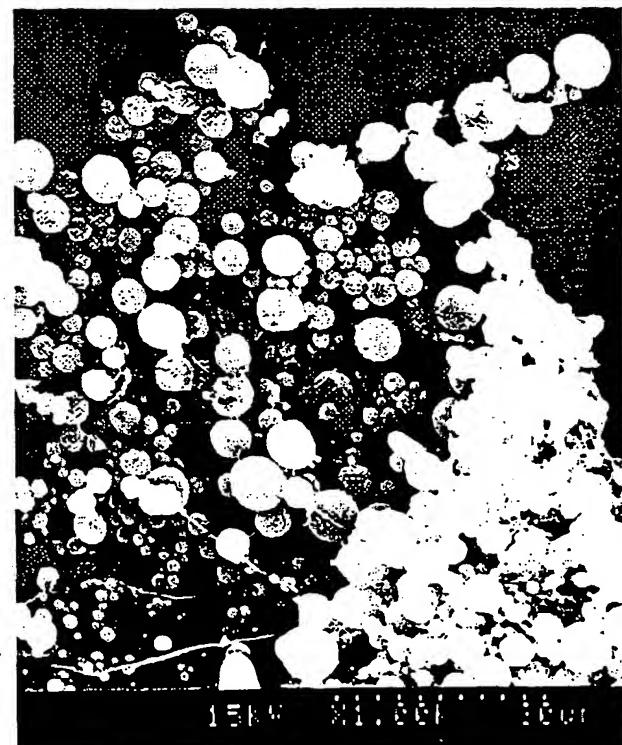
FIG.6A

6(b)/36



PLGpZS encapsulating Antigen

FIG.6B



PLGpS encapsulating Antigen

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Comparative Release of Hin-47 from
PLG, PLGpZS and PLGpS Microspheres
(μ g Hin-47/mg Microspheres)

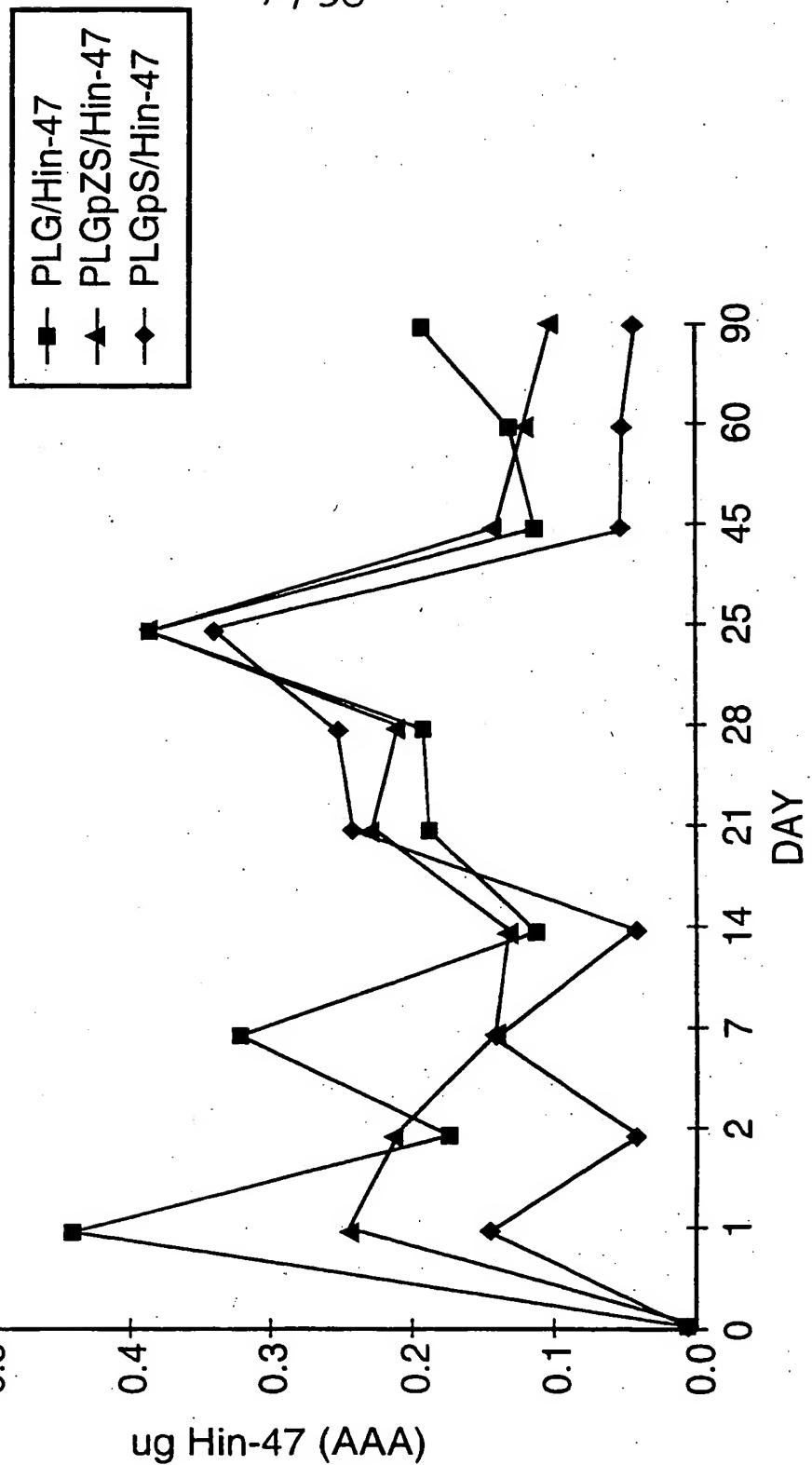


FIG. 7A

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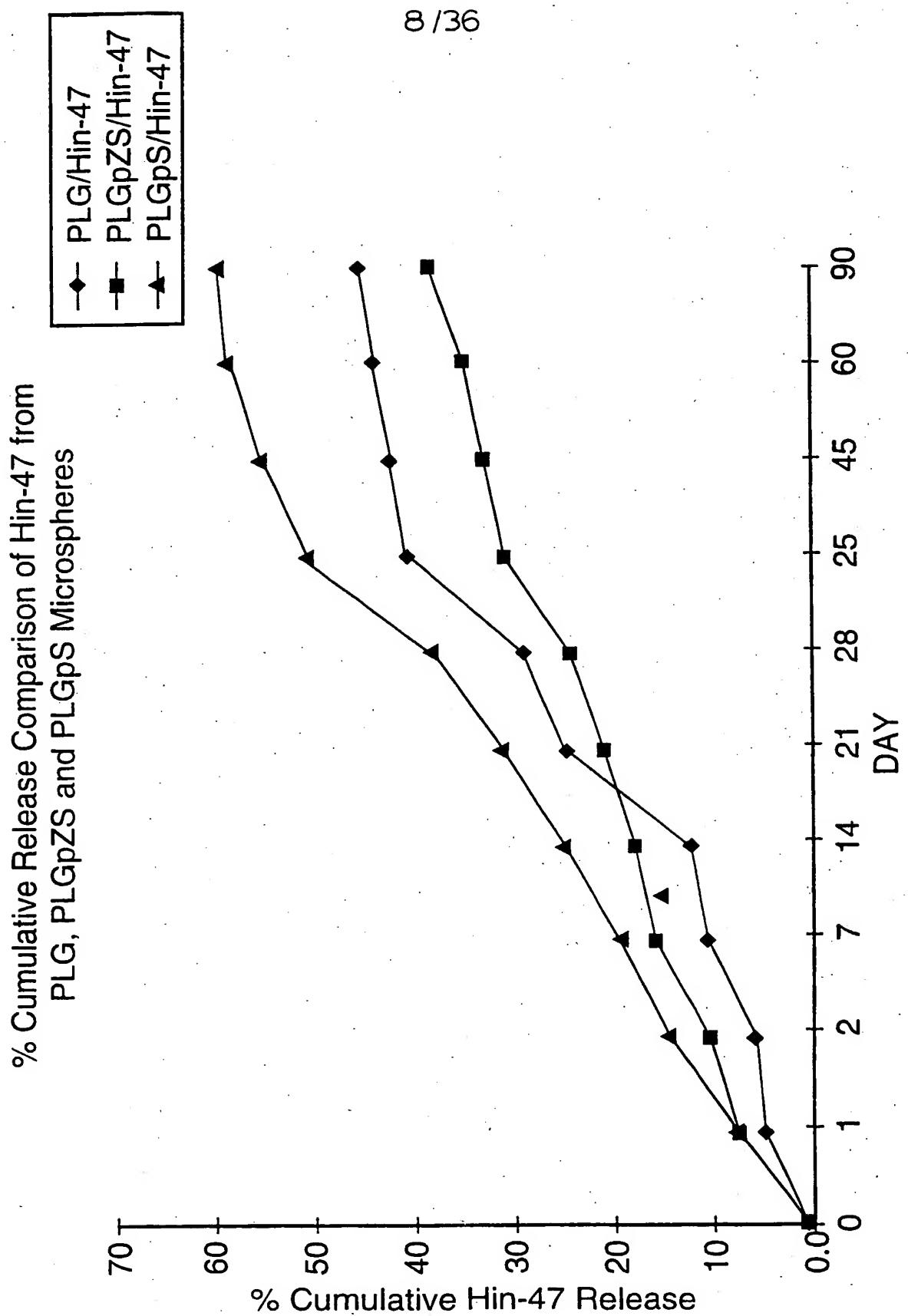


FIG. 7B

Anti-Hin-47 IgG Antibody Responses
from PLG, PLGpZS and PLGpS Microspheres
(Day 10, 24, 35, 45 and 60)
Subcutaneous Immunizations (Day 1 and 35)

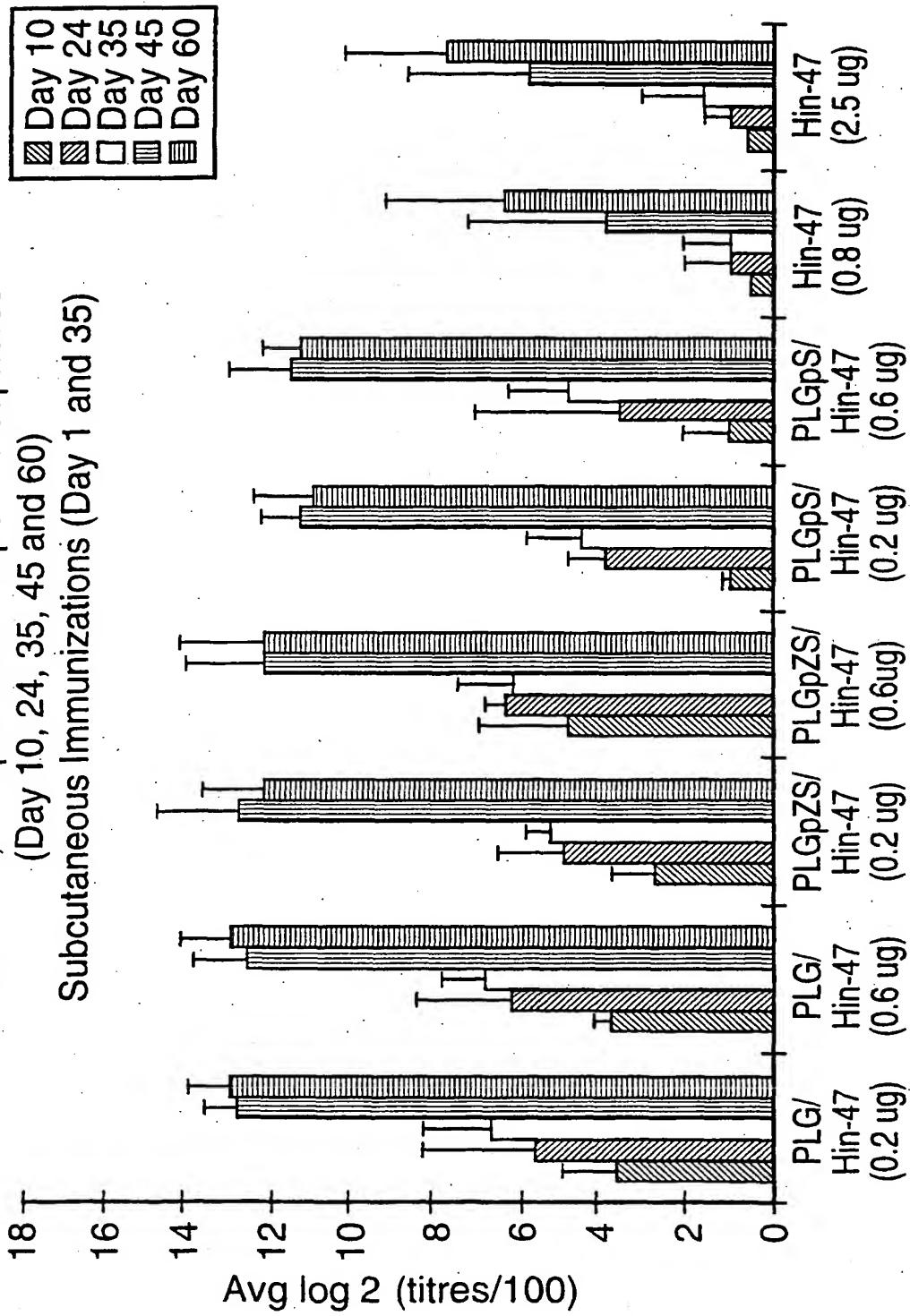


FIG.8A

Anti-Hin-47 IgG Antibody Responses
 from Physical Mixes of PLG/PBS Microspheres
 and Hin-47 (Day 10, 24, 35, 45 and 60)
 Subcutaneous Immunizations (Day 1 and 35)

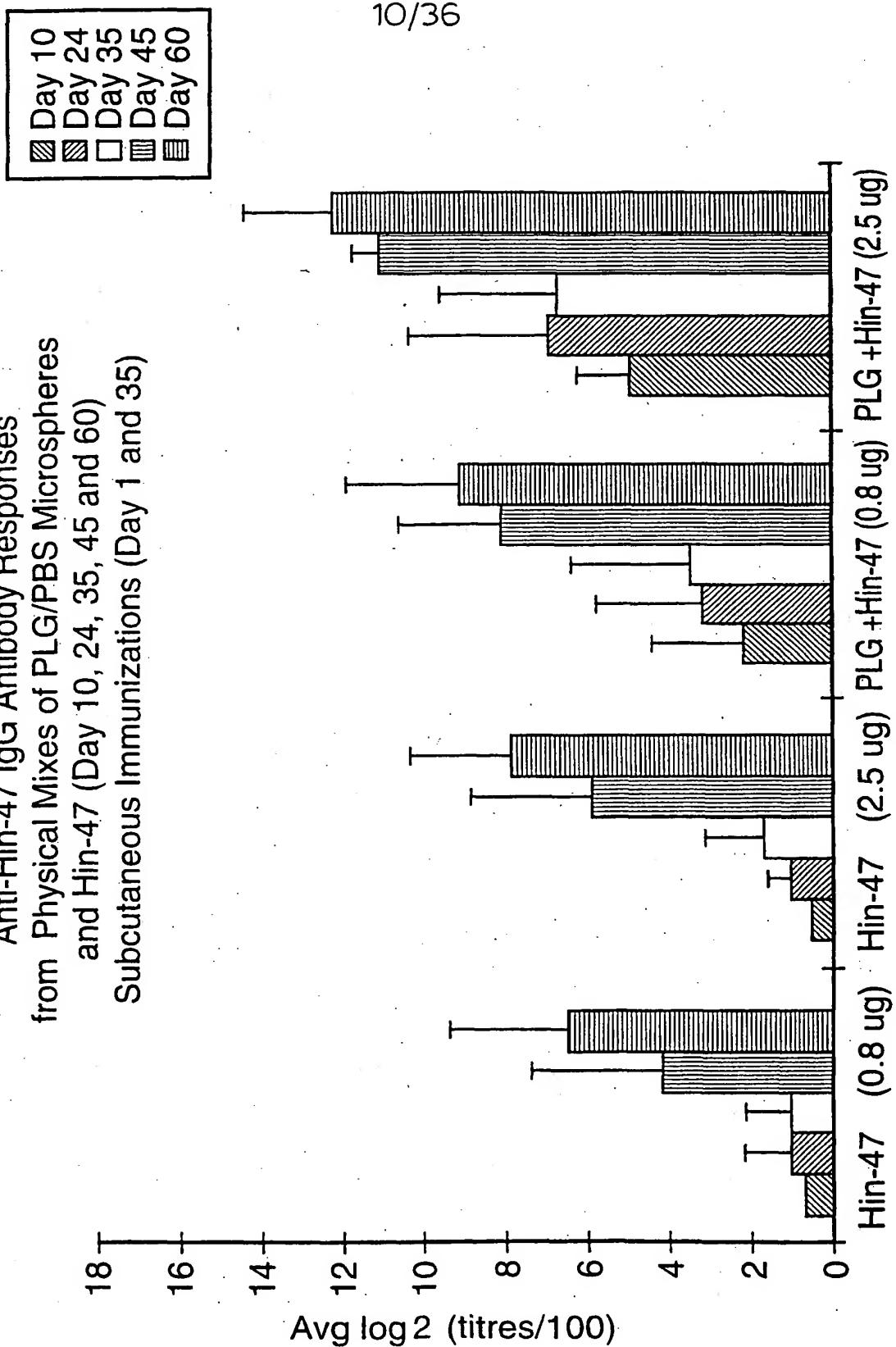


FIG. 8B

Anti-Hin-47 IgG Subtypes
 Low Dose Groups (Day 35 and 60)
 Subcutaneous Immunizations (Day 1 and 35)

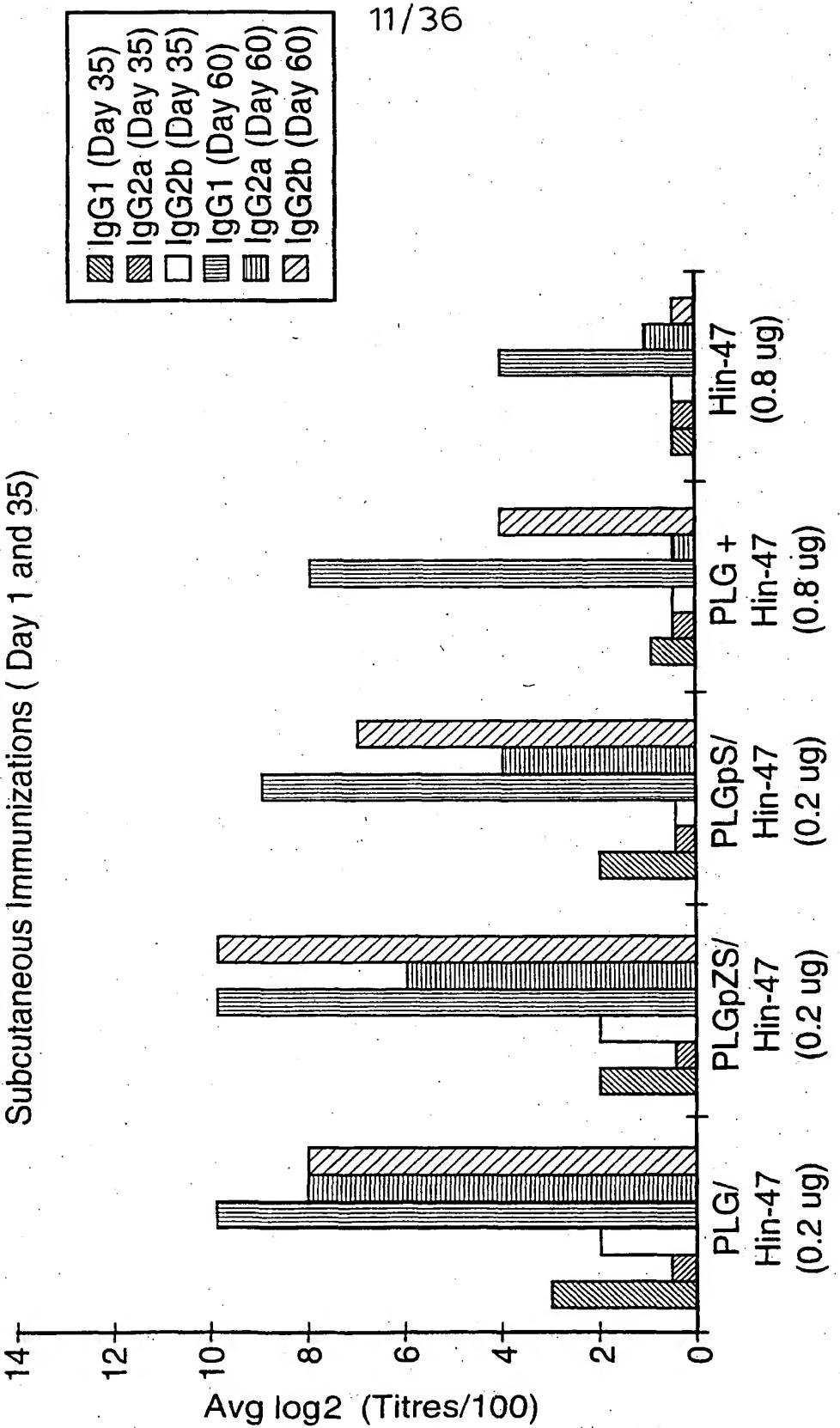


FIG.8C

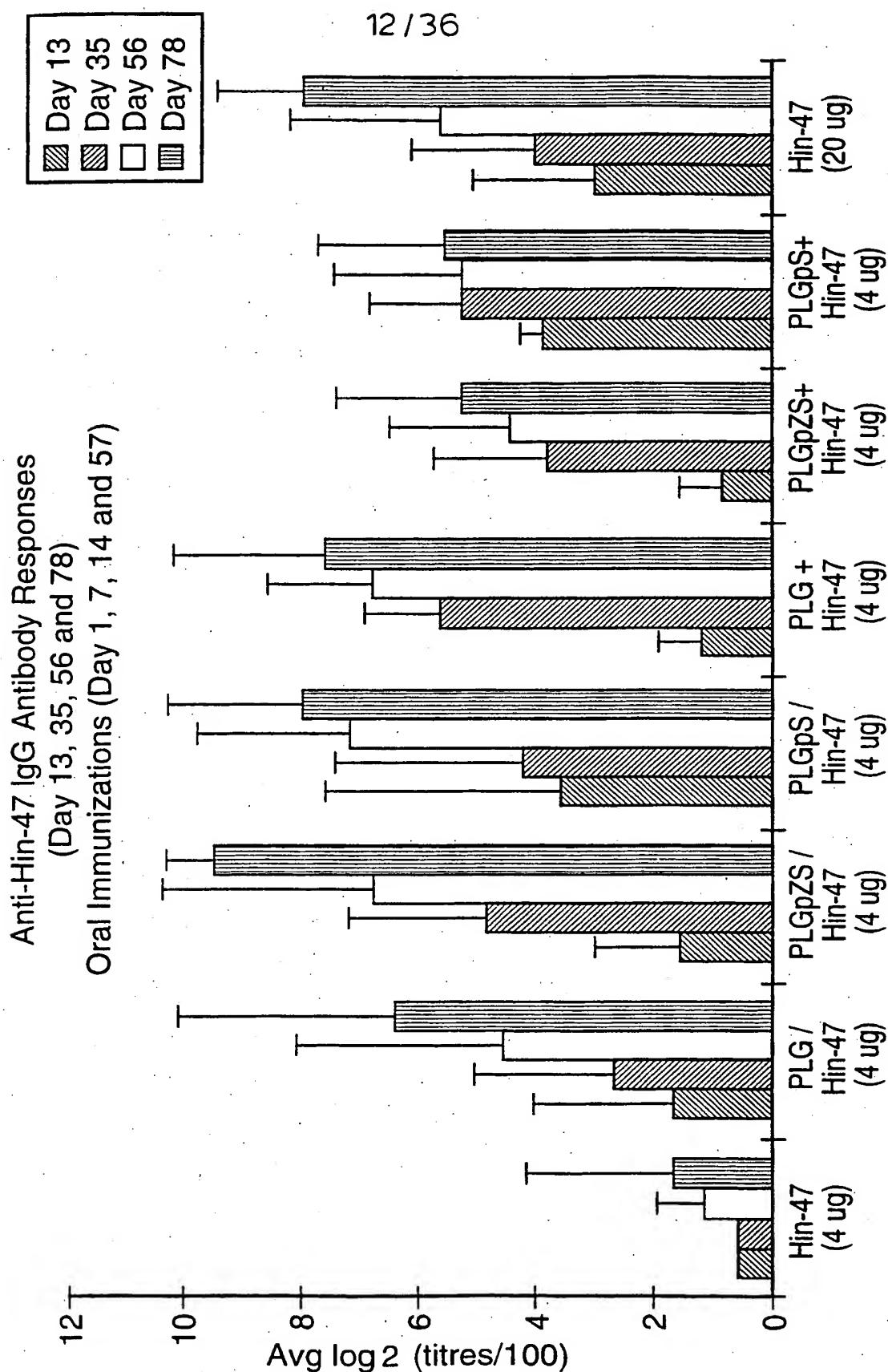


FIG. 9A

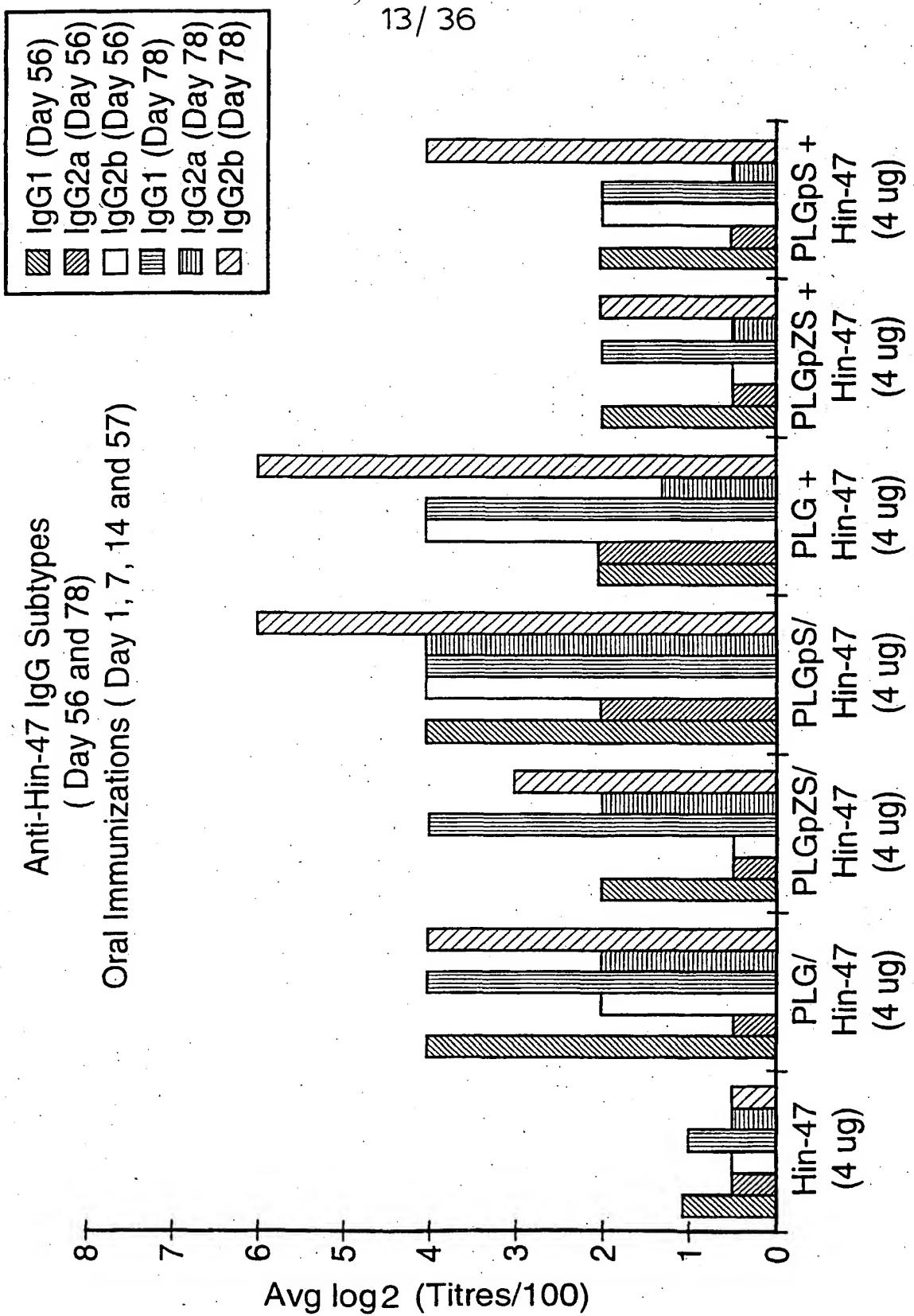
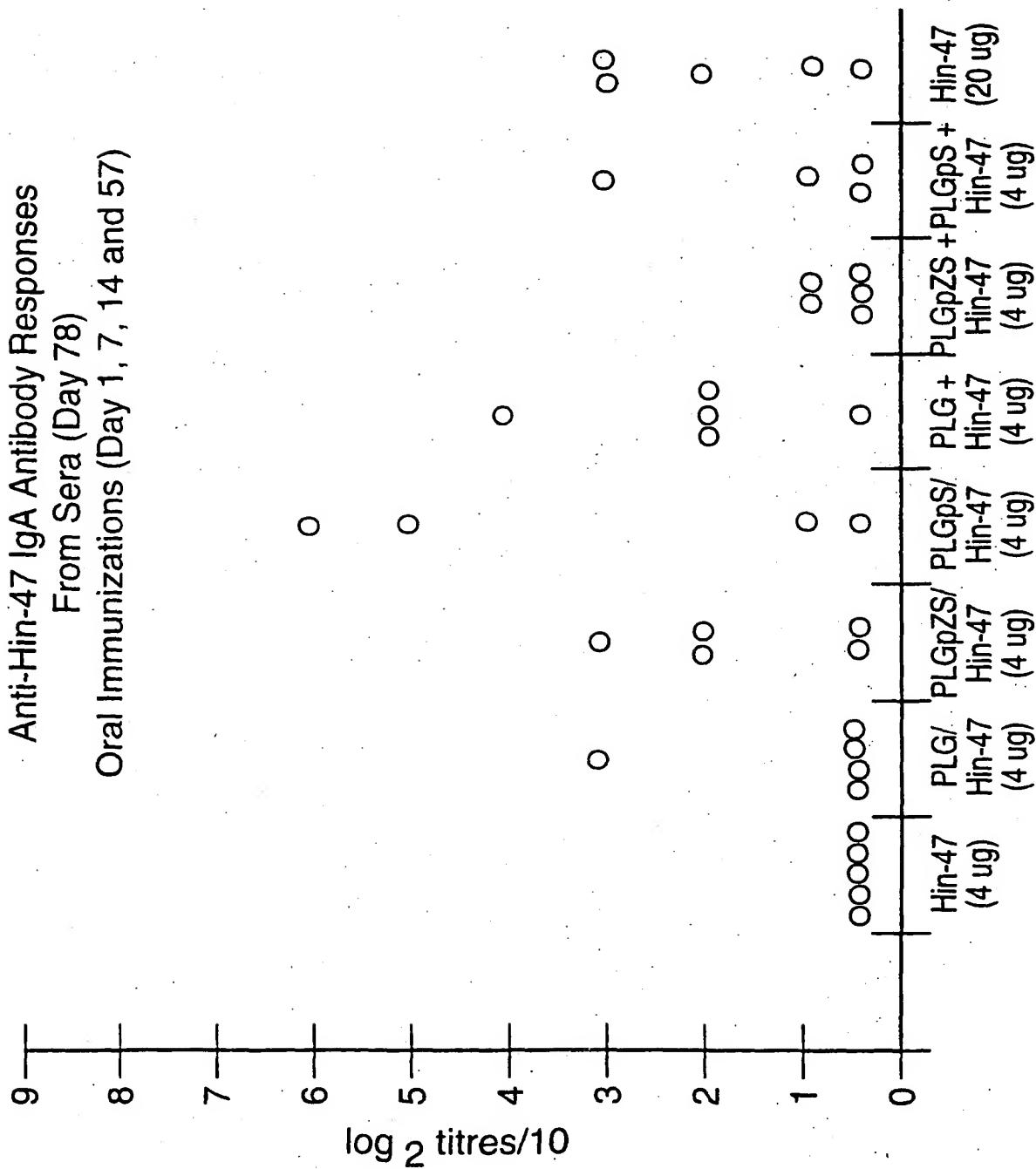


FIG.9B

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EIG 9C

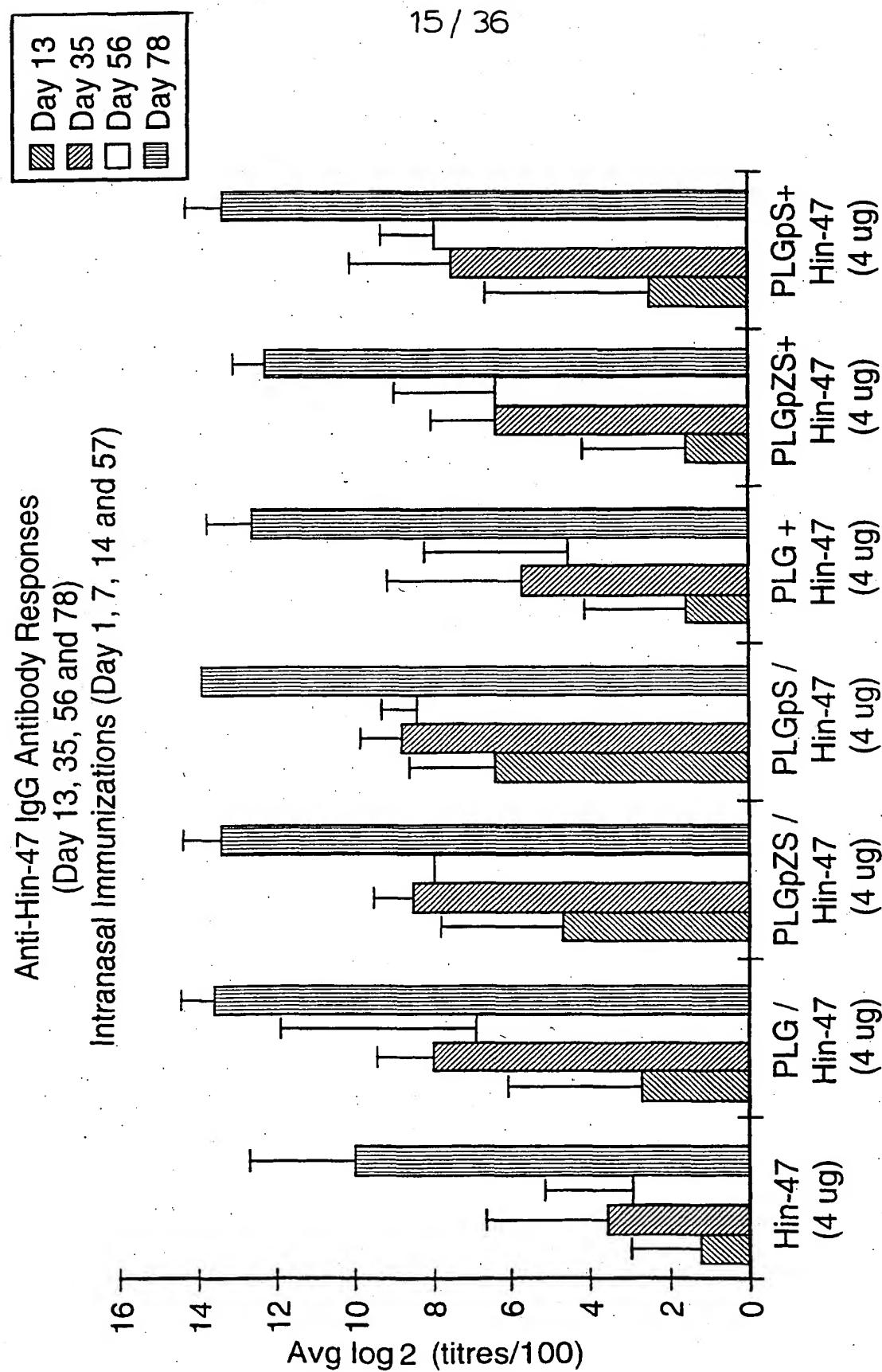


FIG. 10A

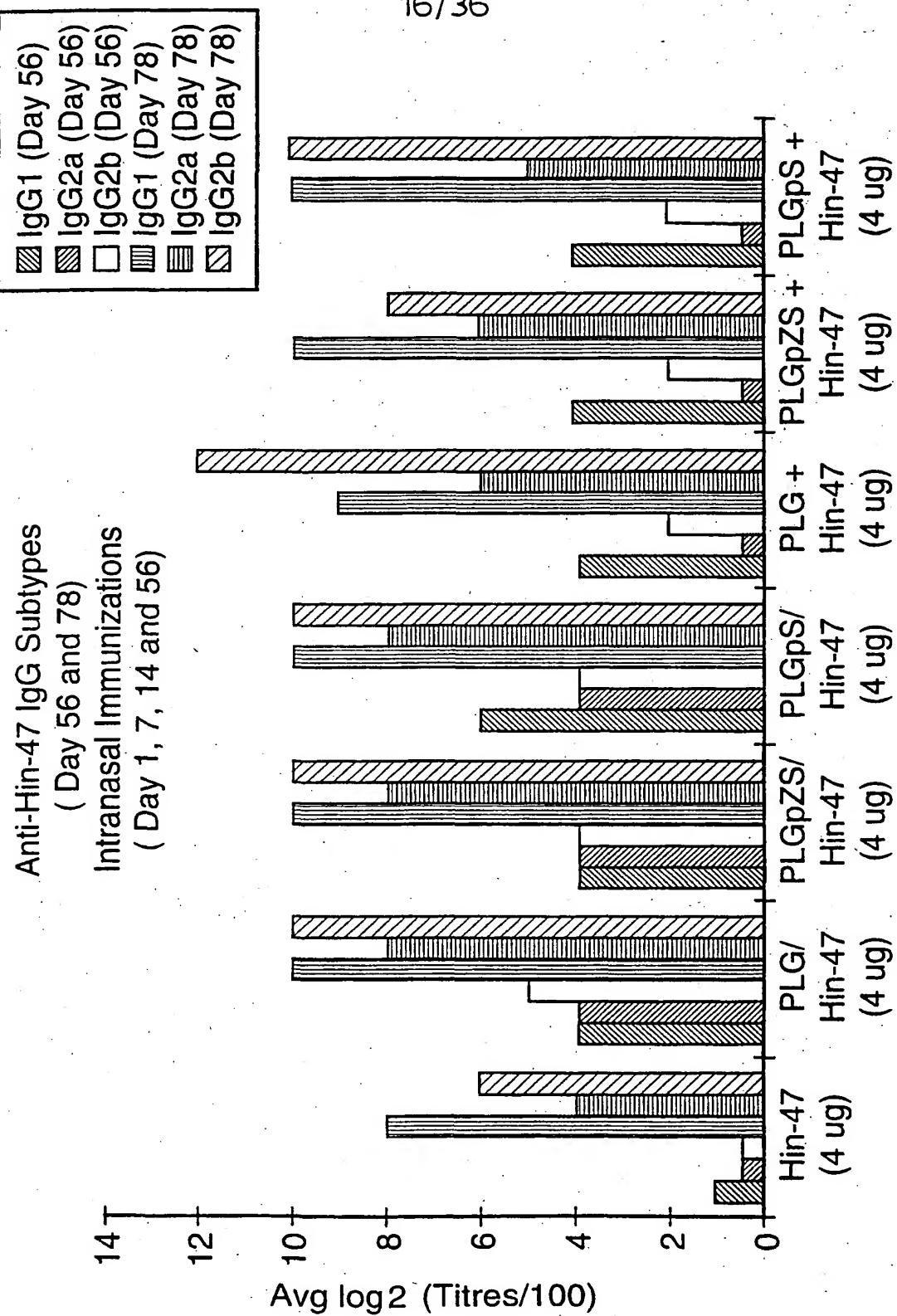


FIG. 10B

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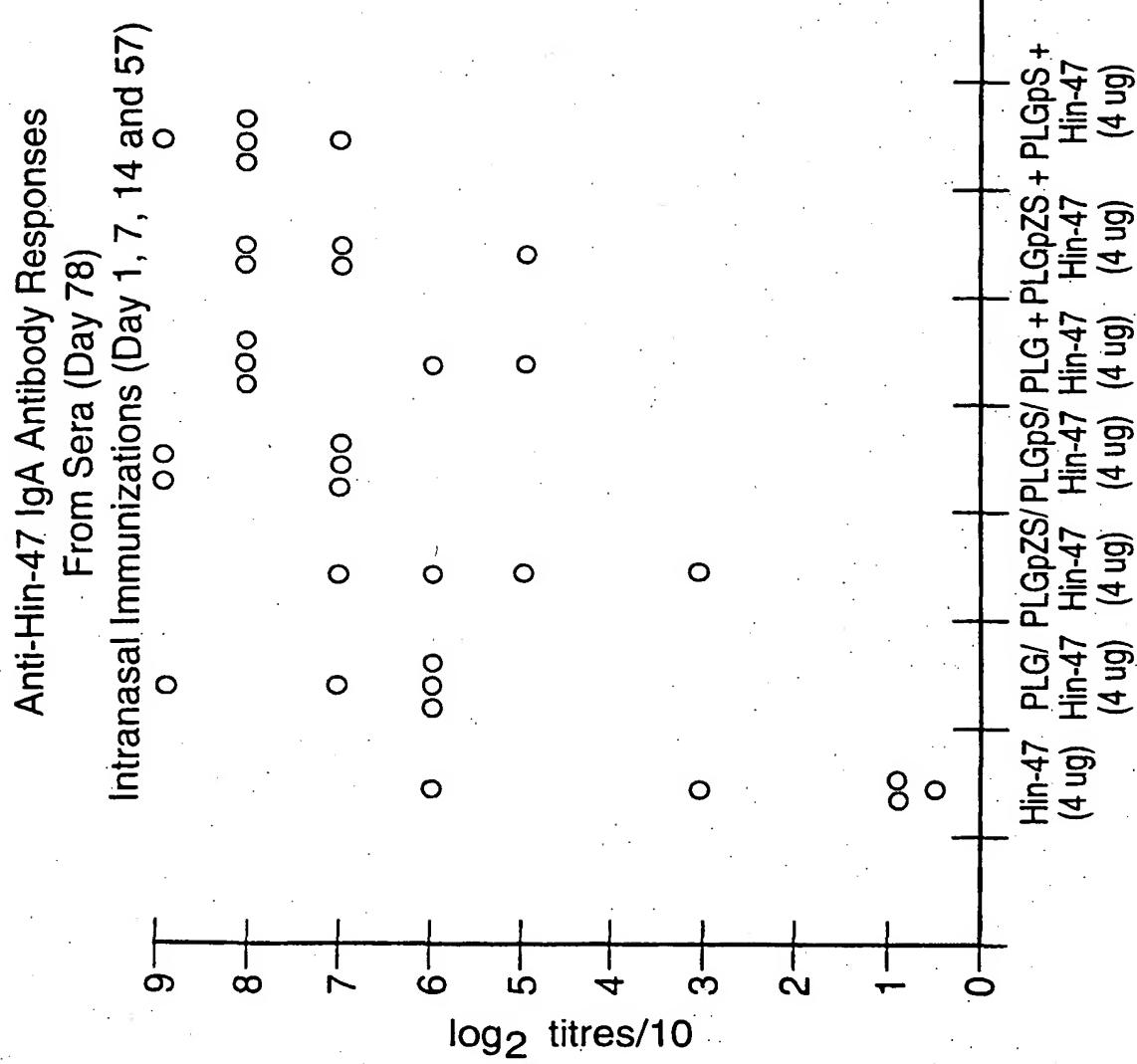


FIG. 10C

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Anti-Hin-47 IgD Antibody Responses
From Lung Lavage (Day 78)
Intranasal Immunizations (Day 1, 7, 14 and 57)

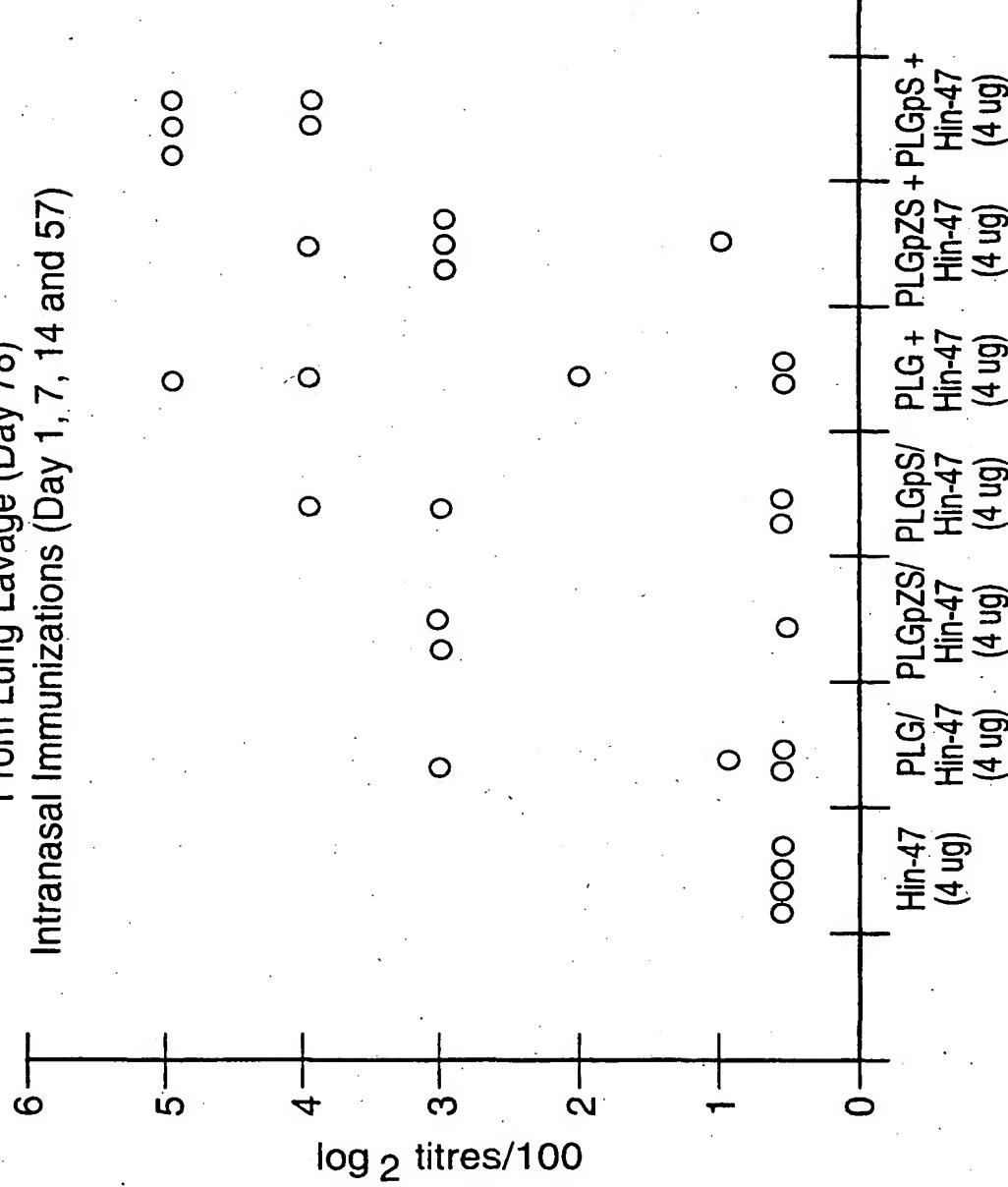


FIG. 10D

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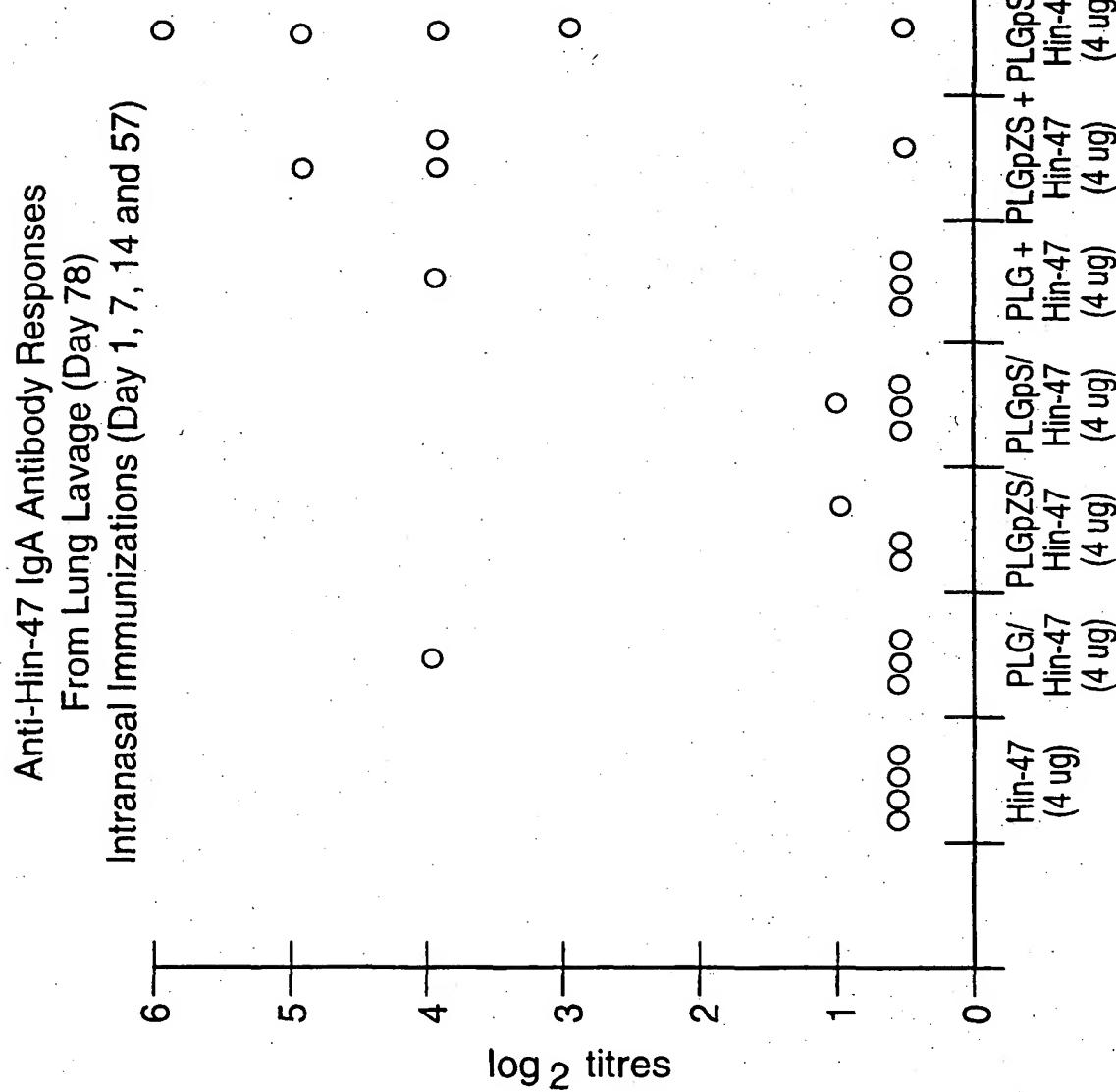


FIG. 10E

Anti-Flu X-31 IgG Antibody Responses
from PLG, PLGpZS and PLGpS Microspheres
(Day 21 and 33)
Subcutaneous Immunization (Day 1)

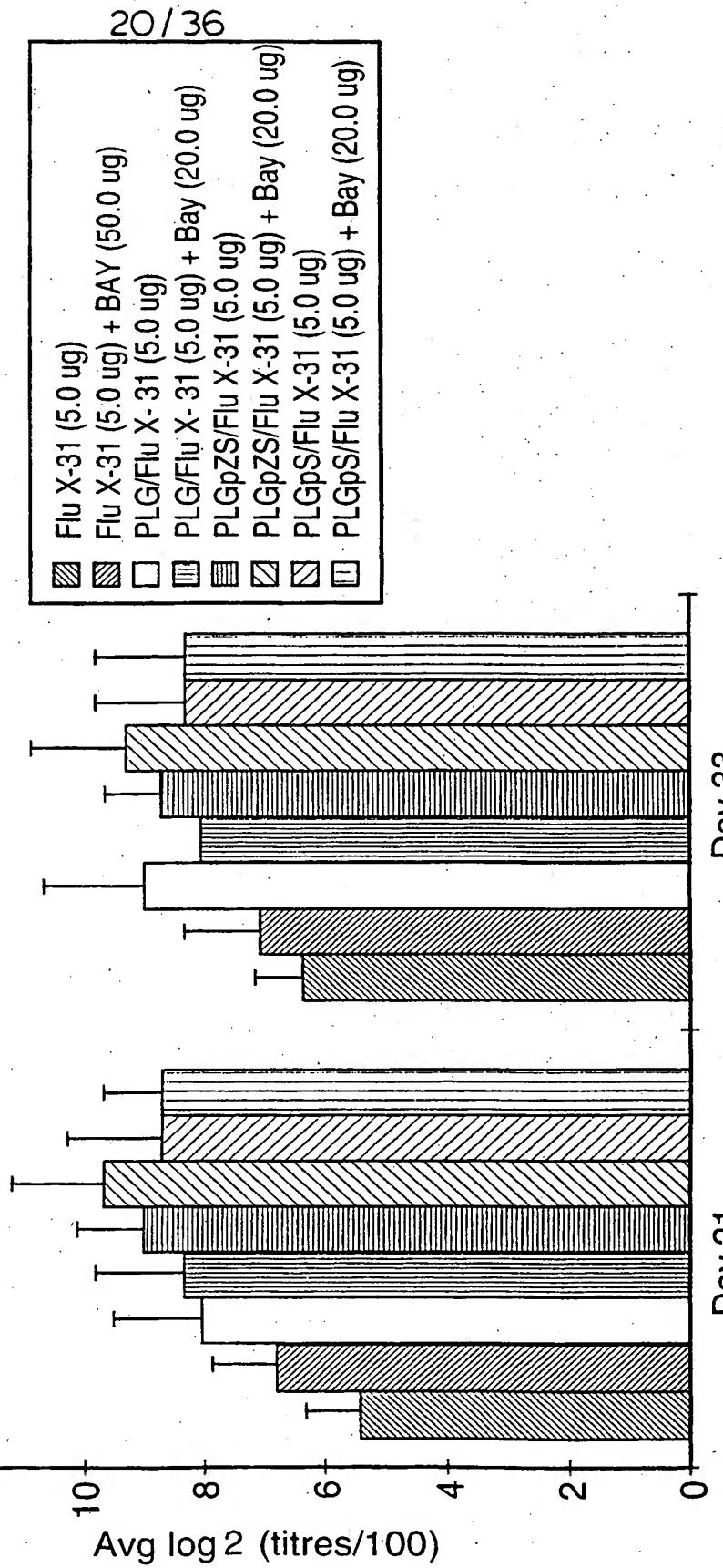


FIG. 11

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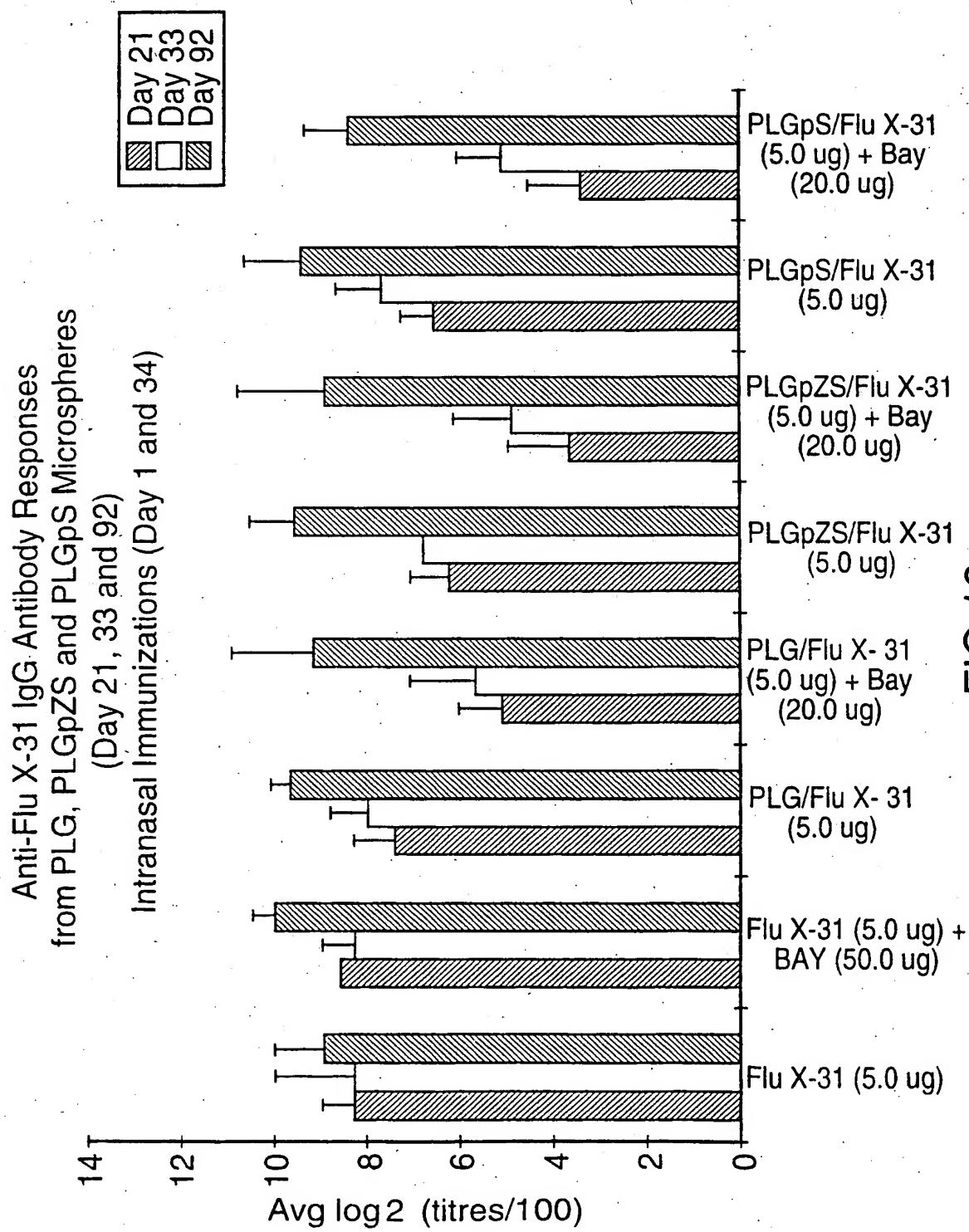


FIG. 12

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HAI titres from Sera (Day 21, 42 and 57)
 Subcutaneous Immunization (single dose)
 PLGpS/Flu (A-Texas) and BAY R1-005 Formulations
 Dose - Flu = 10 µg, HA = 3.50 µg

7
 6
 5
 4
 3
 2
 1
 0

Avg log 2 HAI titres/15

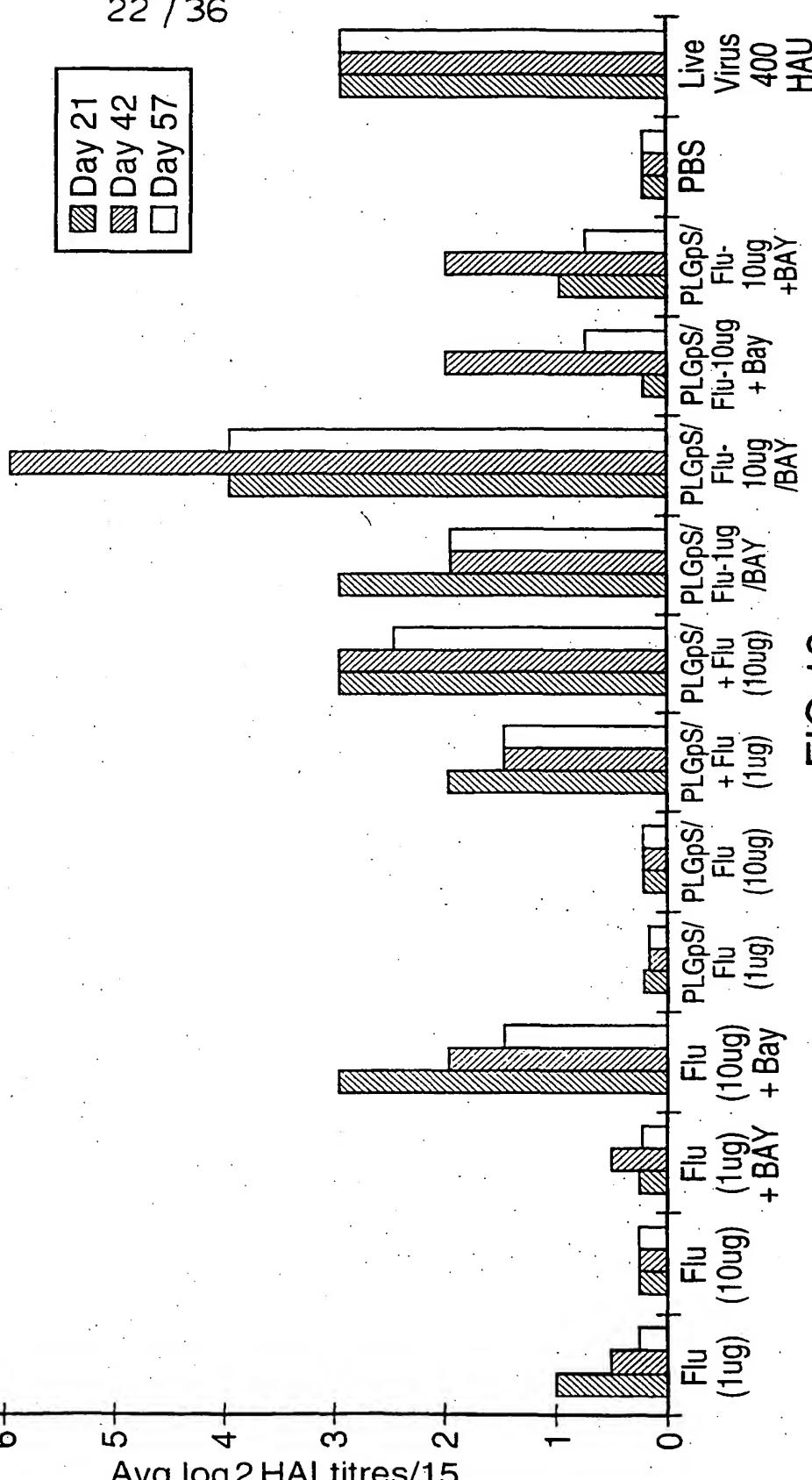


FIG. 13

Anti-Flu (A/Texas) IgG Antibody Responses
 Single Dose - Subcutaneous Study
 PLGpS Microparticles and Flu (trivalent) Formulations
 (Day 21, 42 and 57)

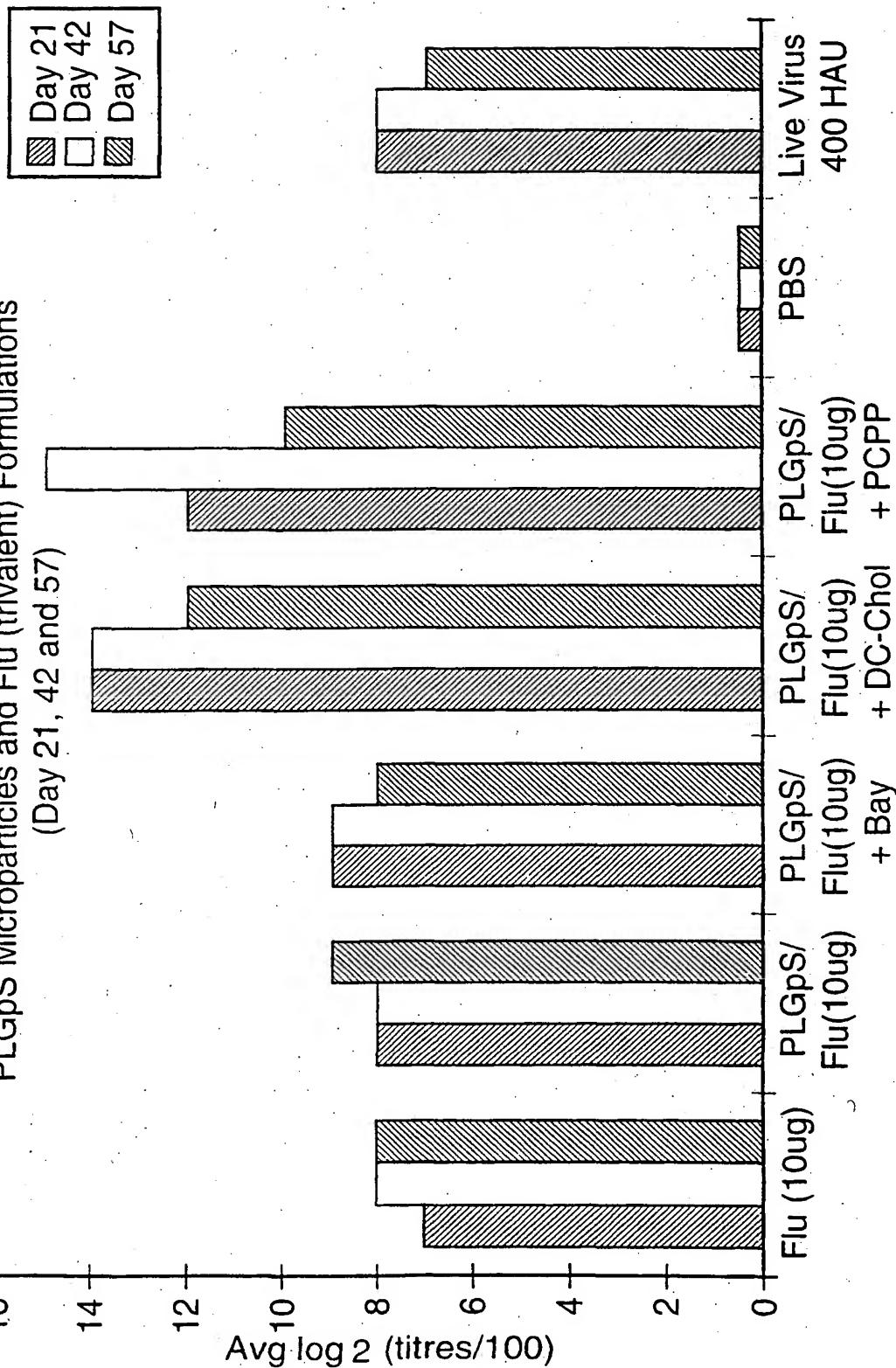


FIG. 14A

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Anti-Flu (A/Johannesburg) IgG Antibody Responses
 Single Dose-Subcutaneous Study
 PLGpS Microparticles and Flu (trivalent) Formulations
 (Day 21, 42 and 57)

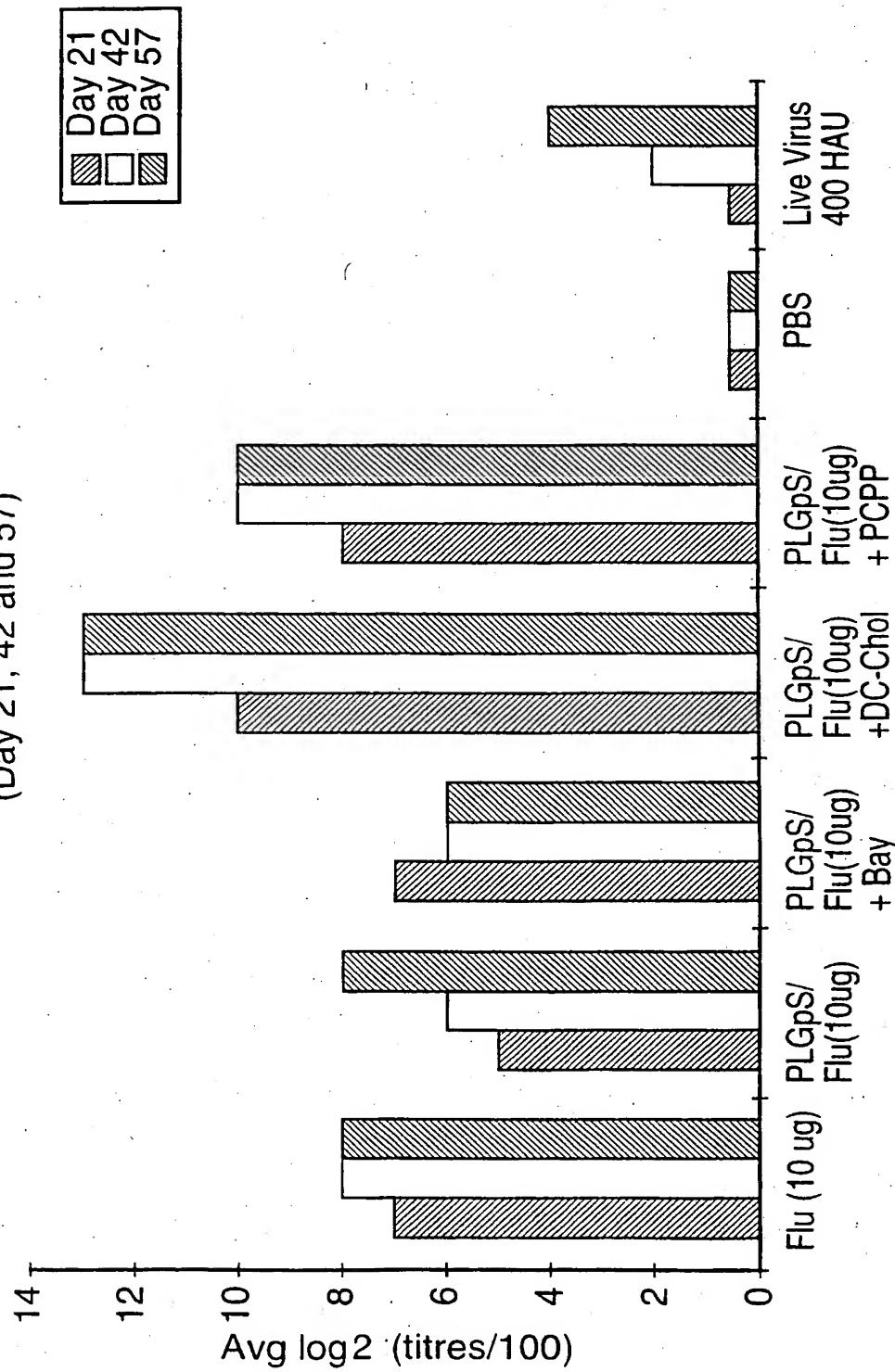


FIG. 14B

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Anti-flu (B/Harbin) IgG Antibody Responses
 Single Dose-Subcutaneous Study
 PLGpS Microparticles and Flu (trivalent) Formulations
 (Day 21, 42 and 57)

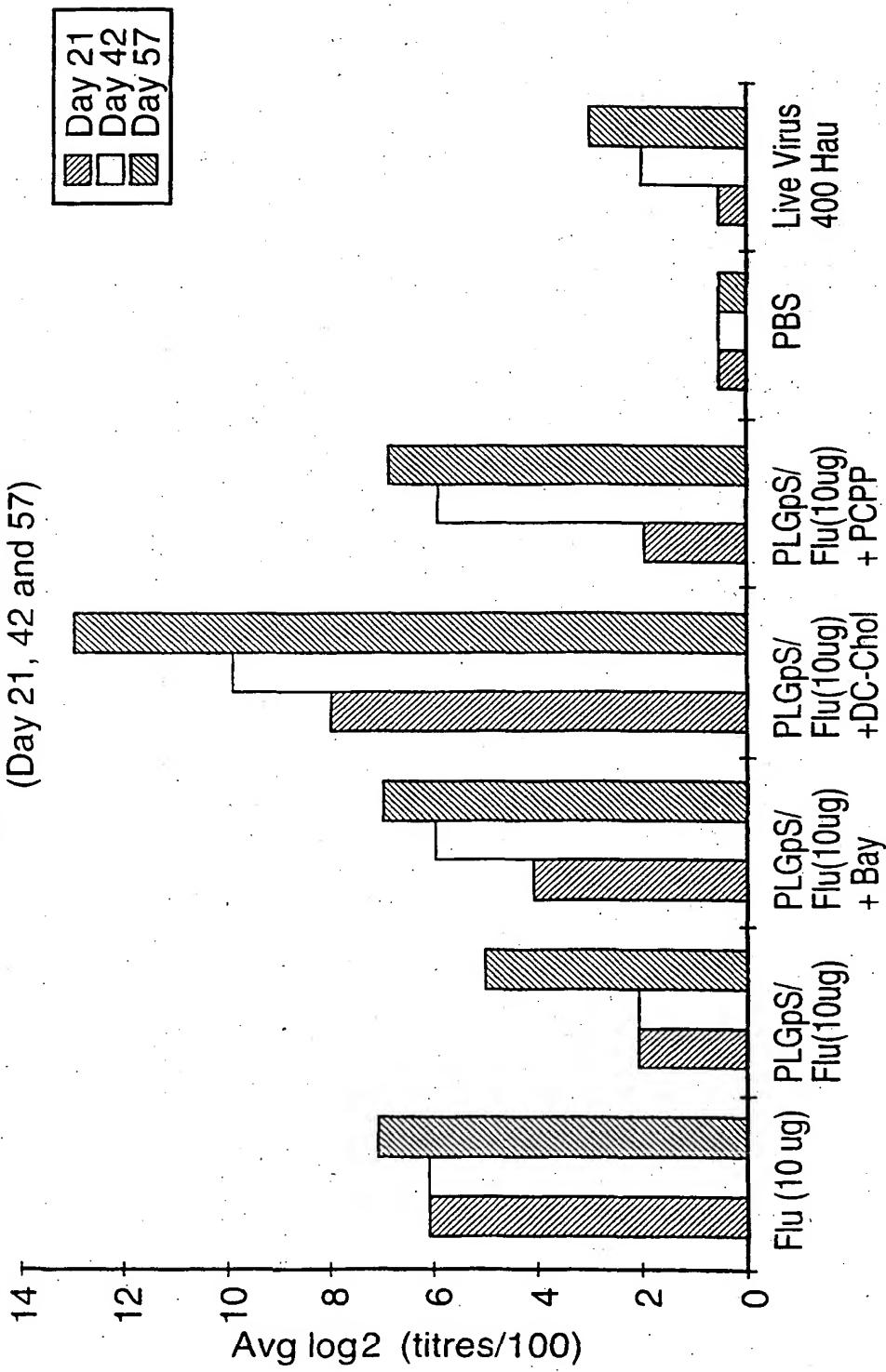


FIG. 14C

HAI titres (A/Texas) from Sera (Day 21, 42 and 57)
 Subcutaneous Immunization (single dose)
 PLGpS Microparticles and Flu (trivalent) Formulations
 Low Dose - Flu = 10 µg, Total HA = 2.35 µg
 High Dose - Flu = 21.2 µg, Total HA = 5.00 µg

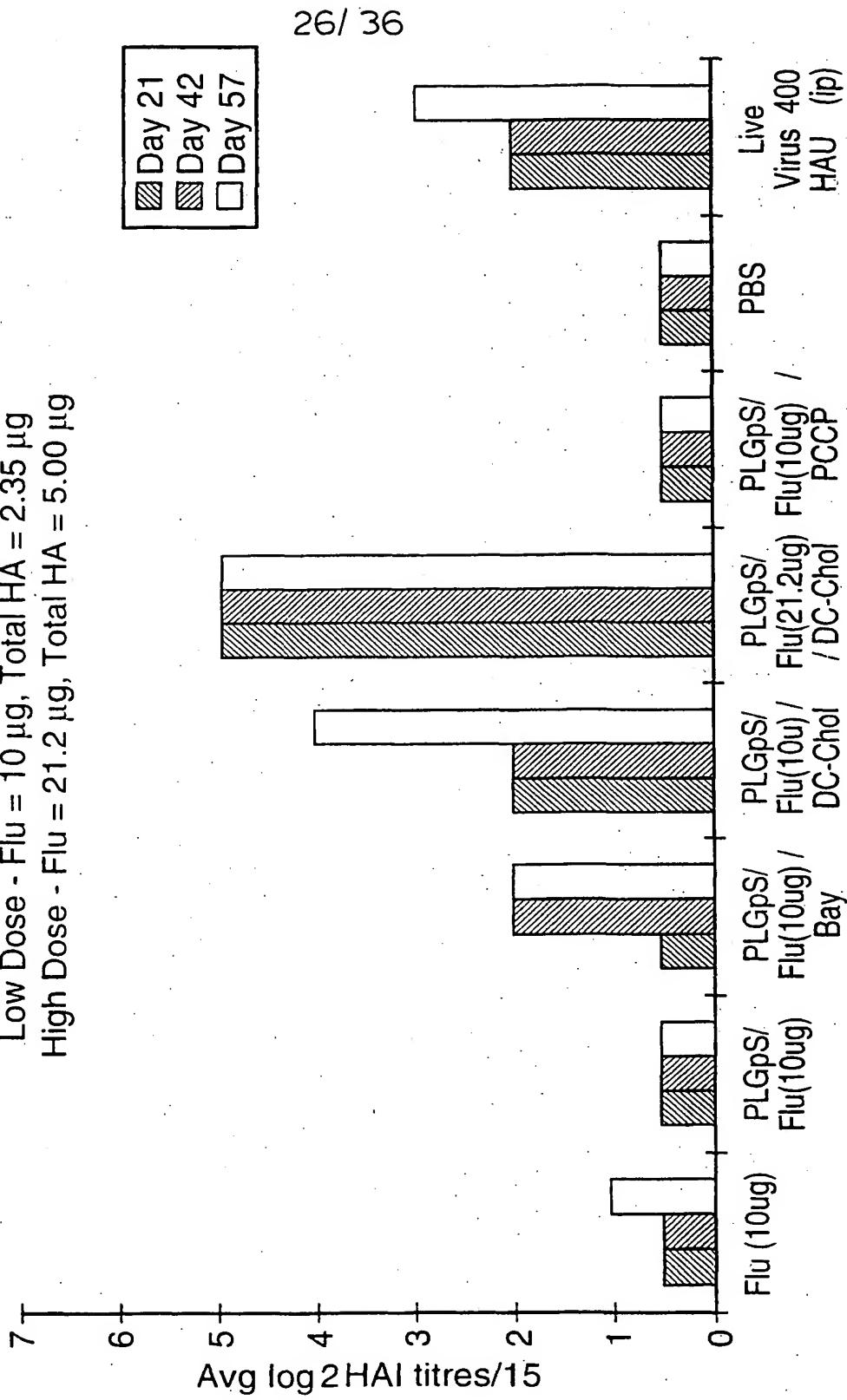


FIG. 15A

HAI titres (A/Johannesburg) from Sera (Day 21, 42 and 57)
 Subcutaneous Immunization (single dose)
 PLGpS Microparticles and Flu (trivalent) Formulations
 Low Dose - Flu = 10 µg, Total HA = 2.35 µg
 High Dose - Flu = 21.2 µg, Total HA = 5.00 µg

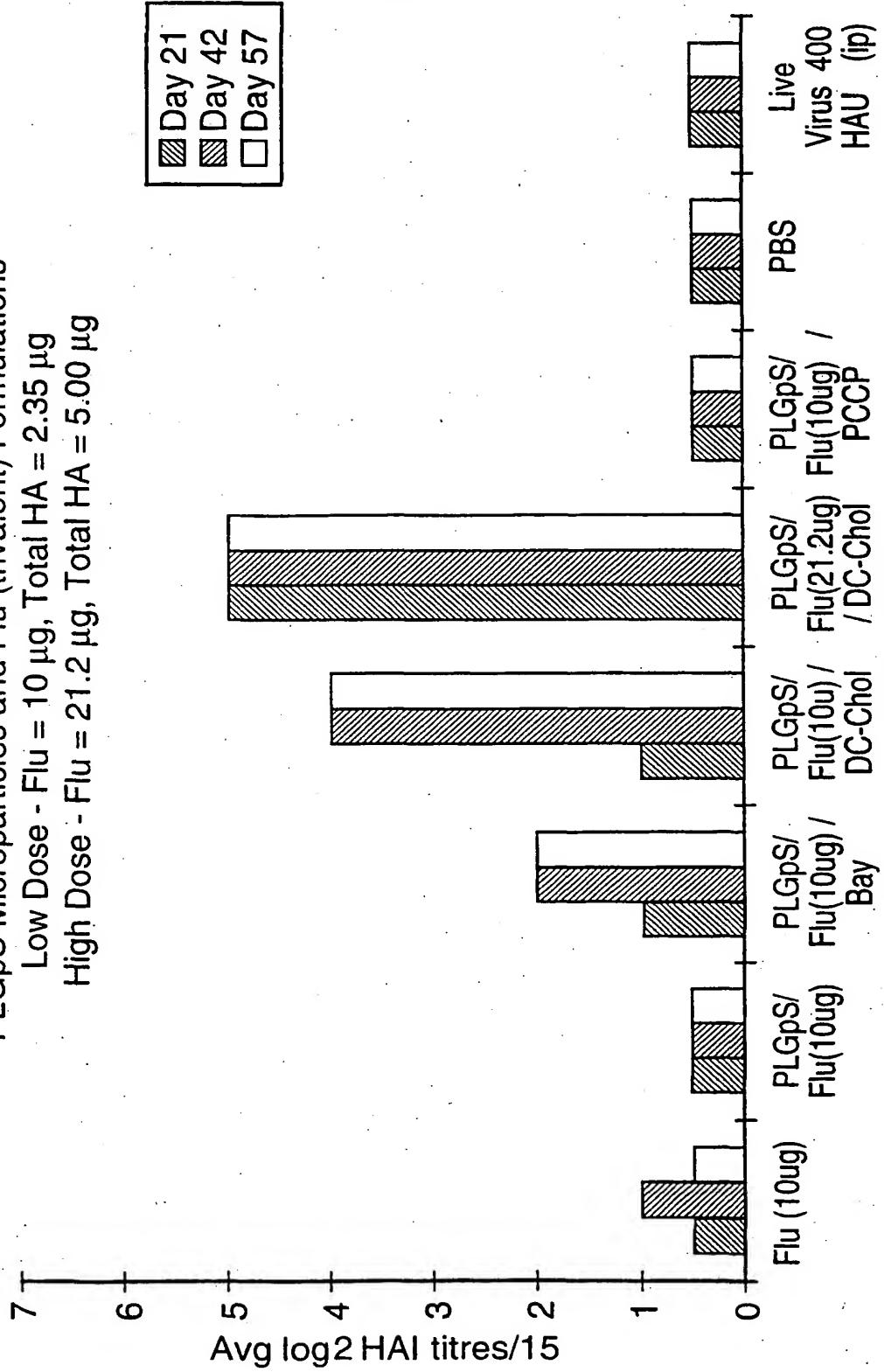


FIG. 15B

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HAI titres (B/Harbin) from Sera (Day 21, 42 and 57)
 Subcutaneous Immunization (single dose)
 PLGpS Microparticles and Flu (trivalent) Formulations
 Low Dose - Flu = 10 µg, Total HA = 2.35 µg
 High Dose - Flu = 21.2 µg, Total HA = 5.00 µg

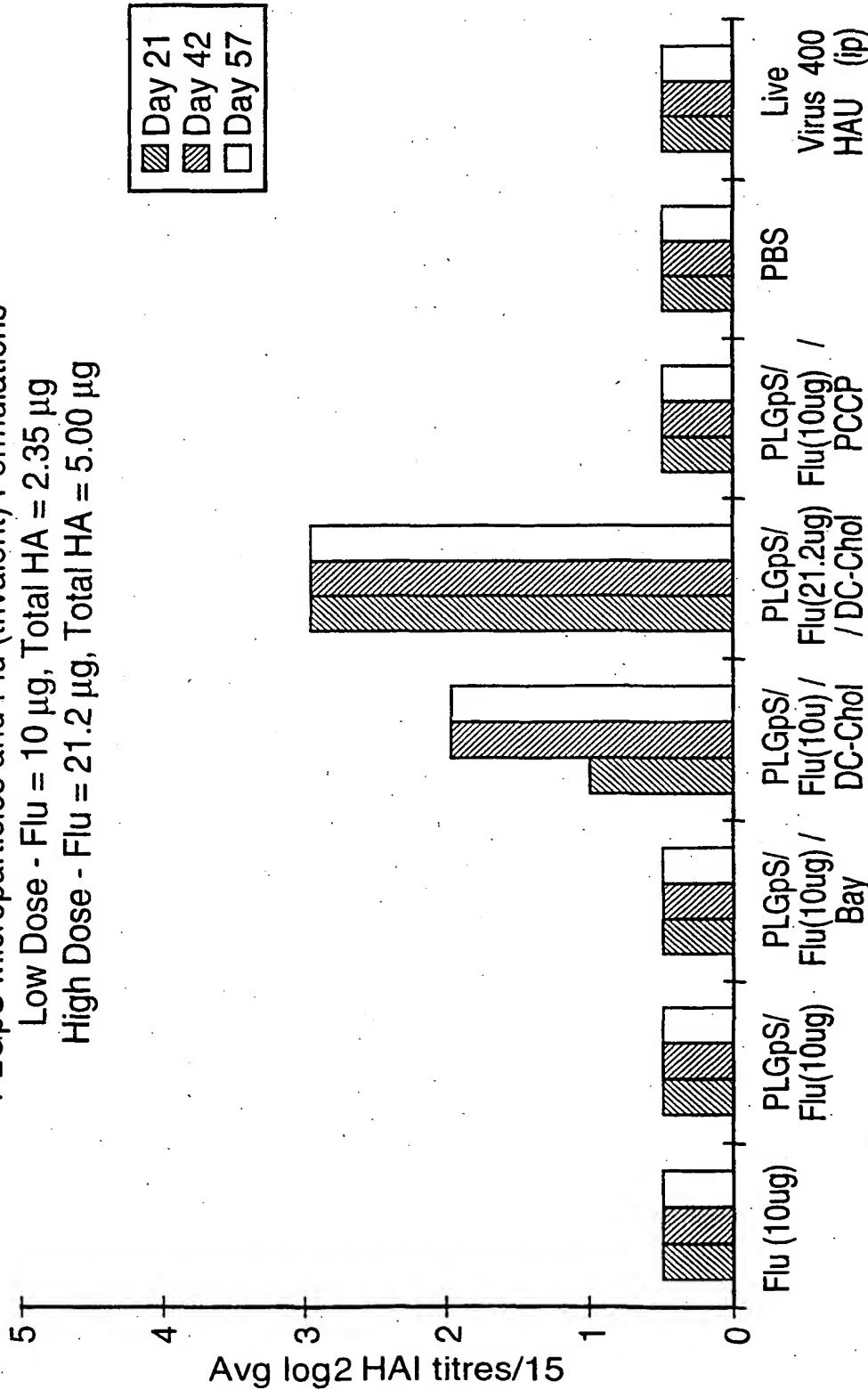


FIG. 15C

Weight Loss Study on Mice Immunized Subcutaneously (Single Dose) with PLGpS Microparticles and Flu Trivalent (10 ug -2.35 ug total HA) Vaccine Formulations Challenged With (A/Taiwan) Virus

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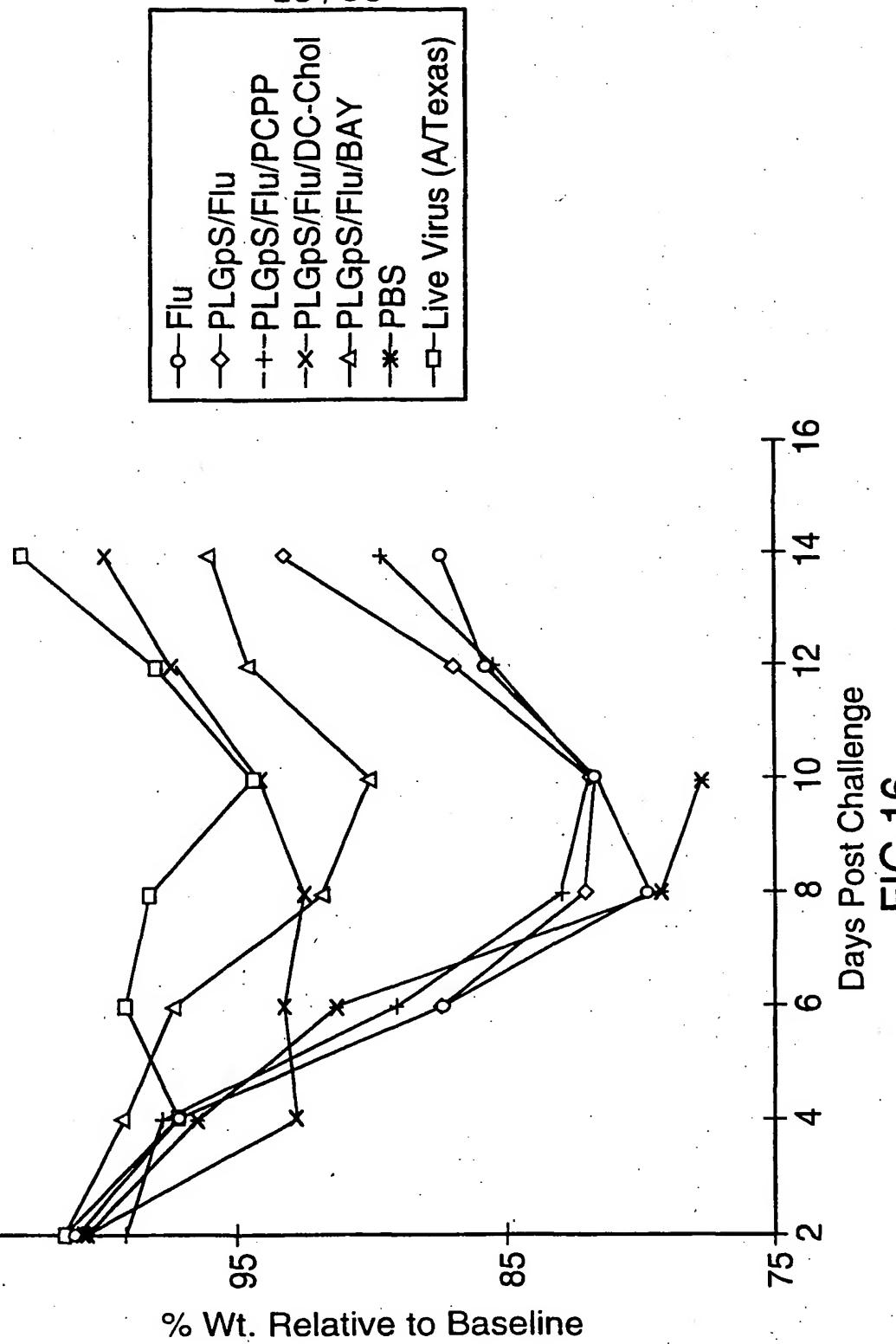


FIG. 16

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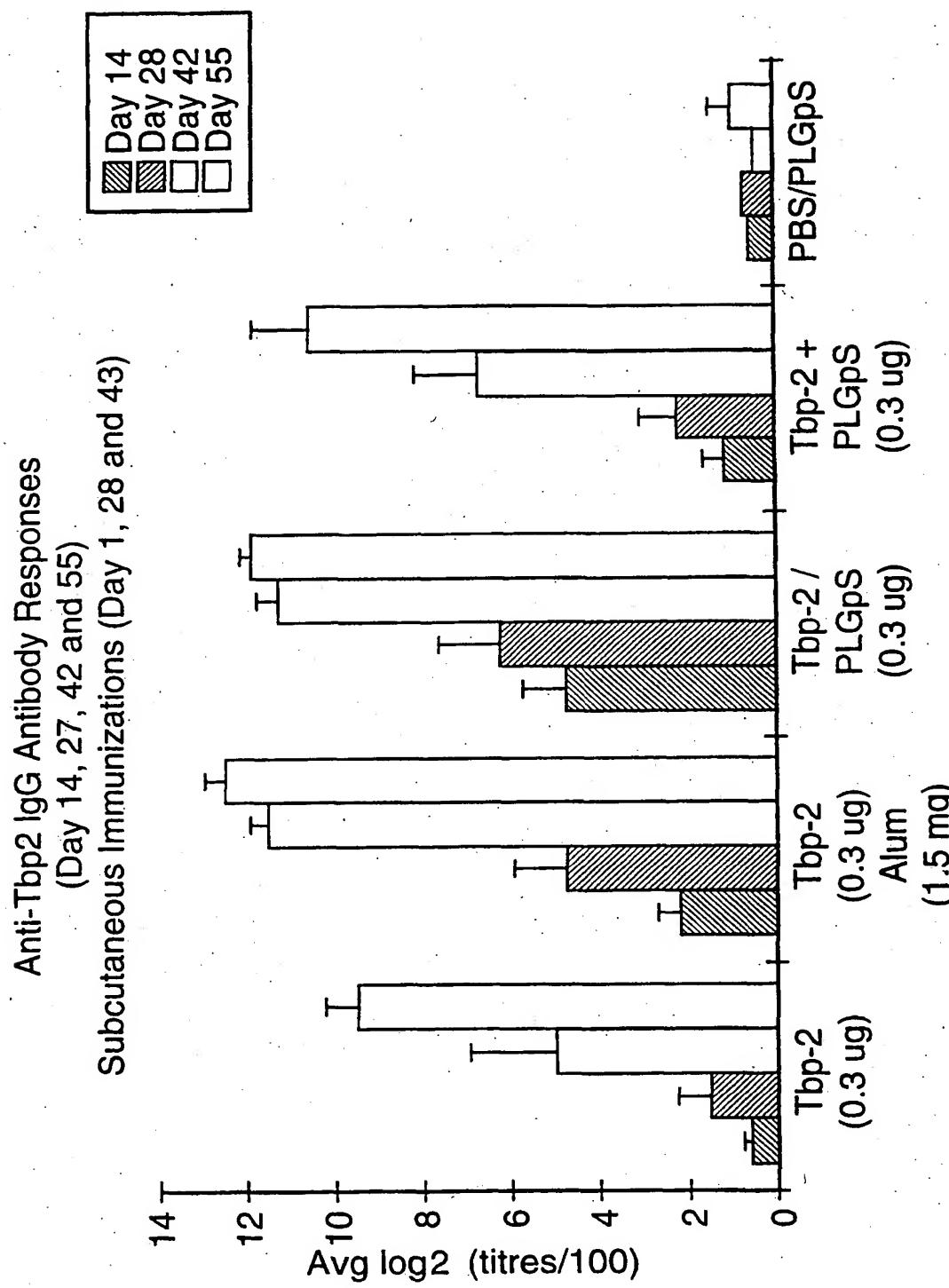


FIG. 17A

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Anti-Tbp2 IgG Subtype Responses (Day 55)
Subcutaneous Immunizations (Day 1,28 and 43)

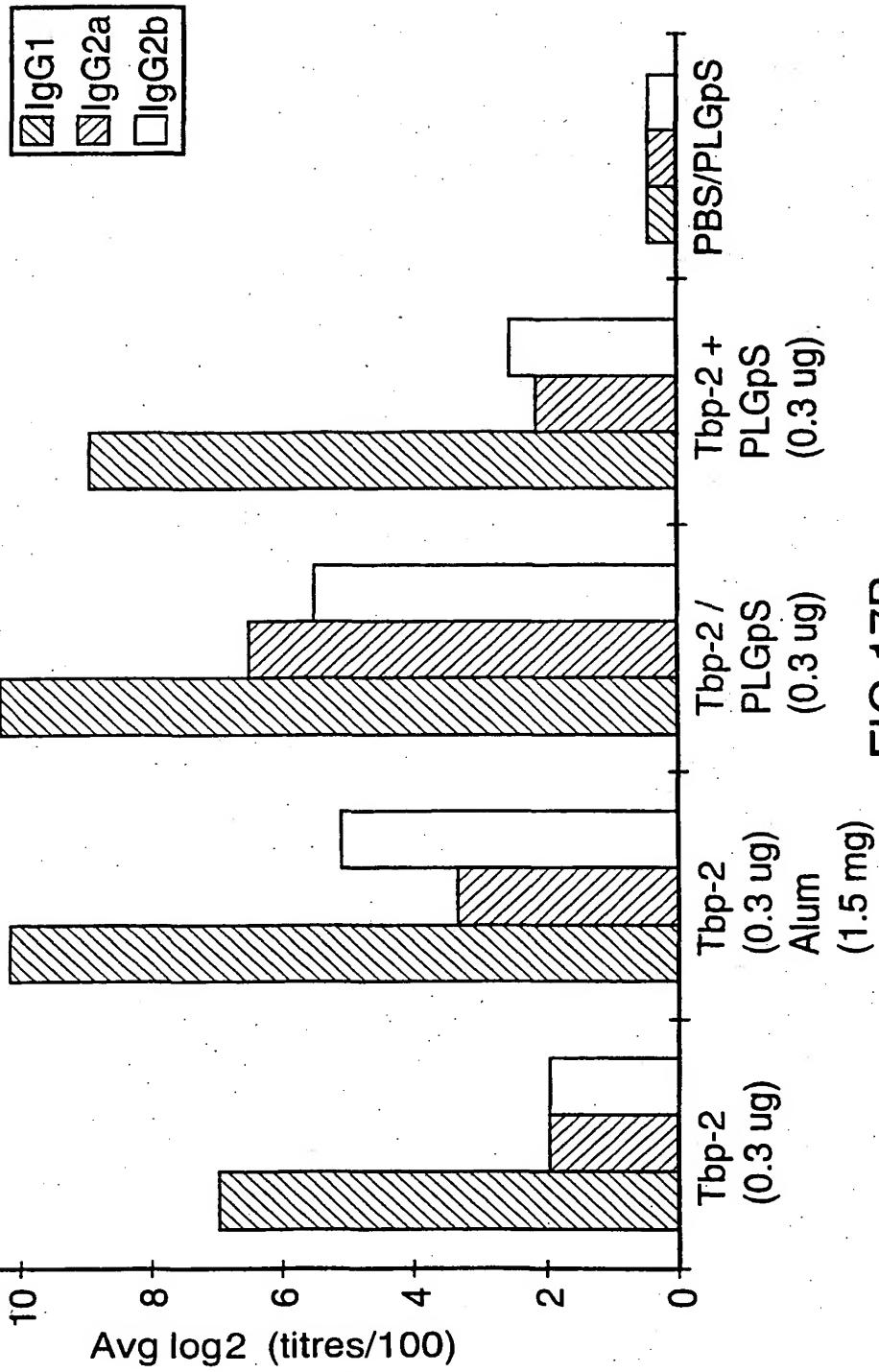


FIG. 17B

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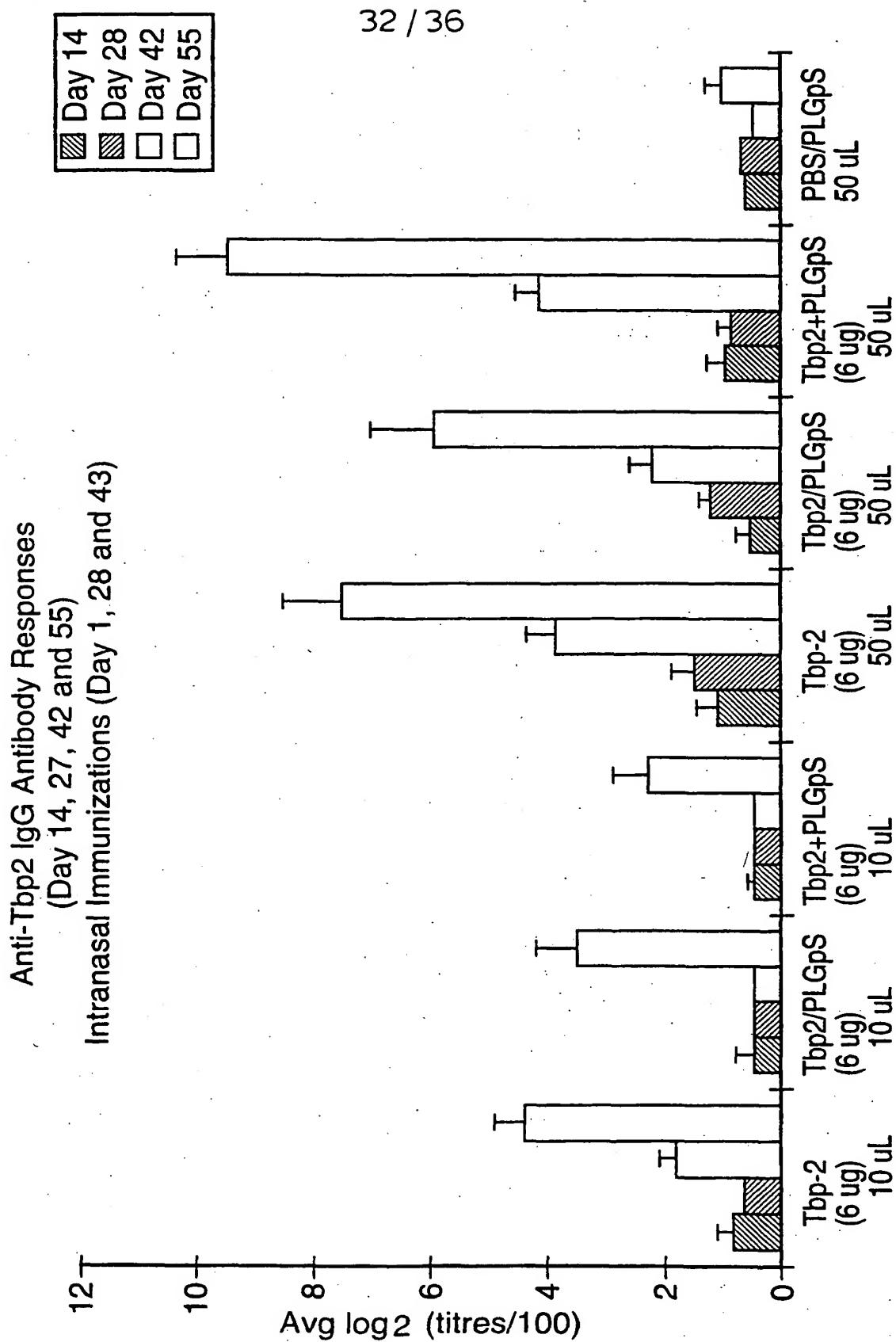


FIG. 18

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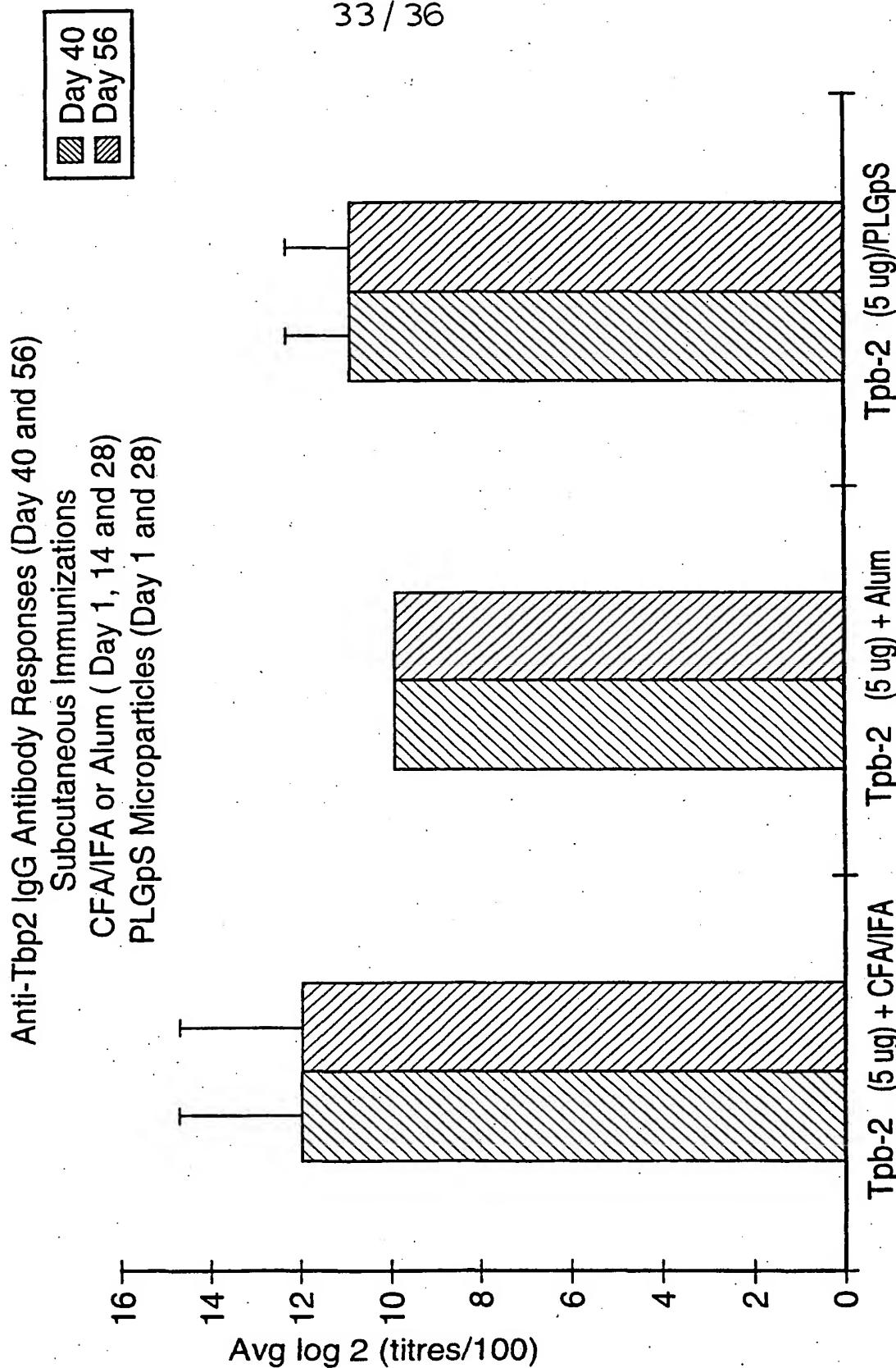


FIG. 19

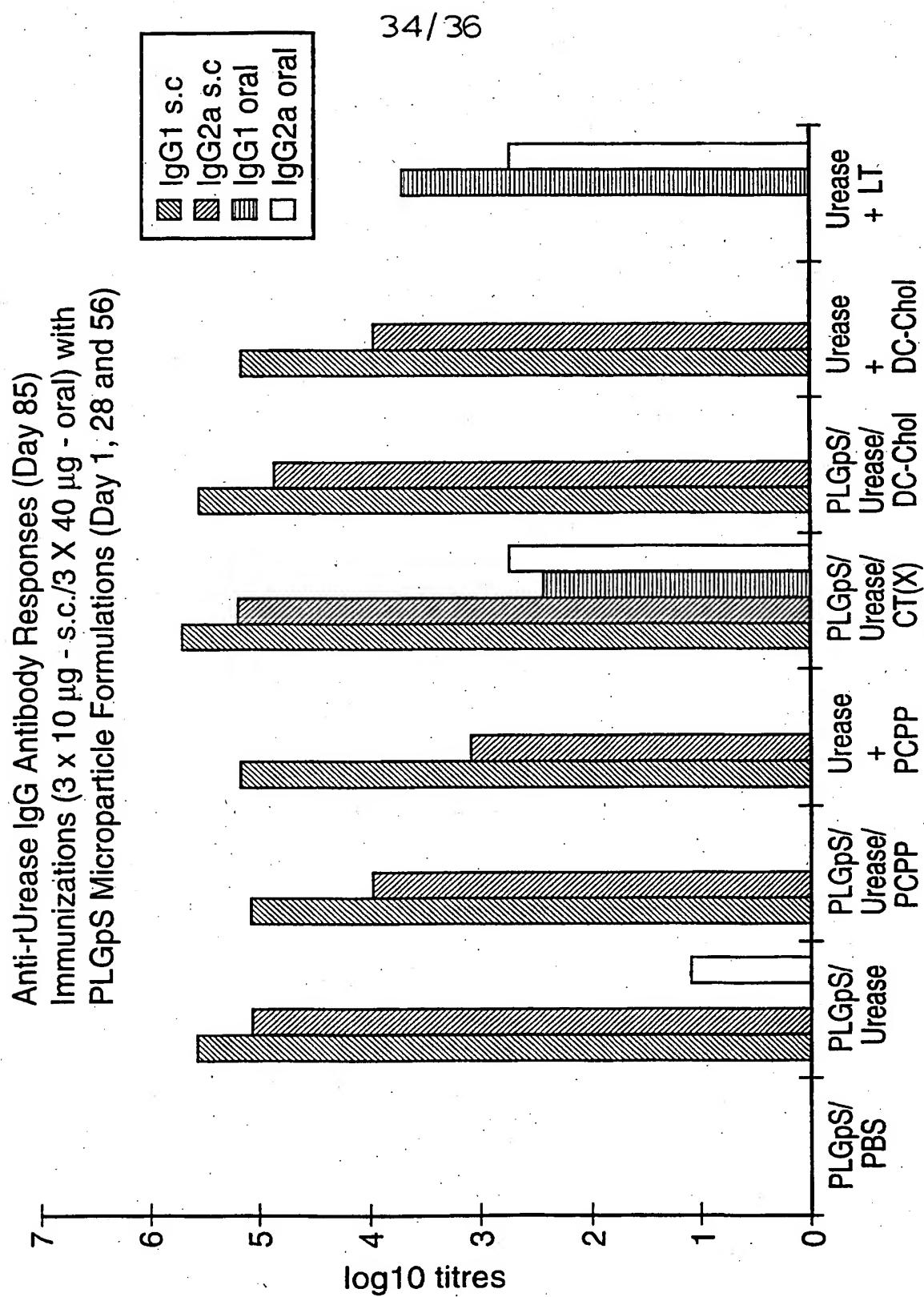


FIG. 20

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Protection Study - Challenge with *H. Pylori* (Day 85) on Mice Immunized Subcutaneously with PLGpS/rUrease Microparticle Formulations

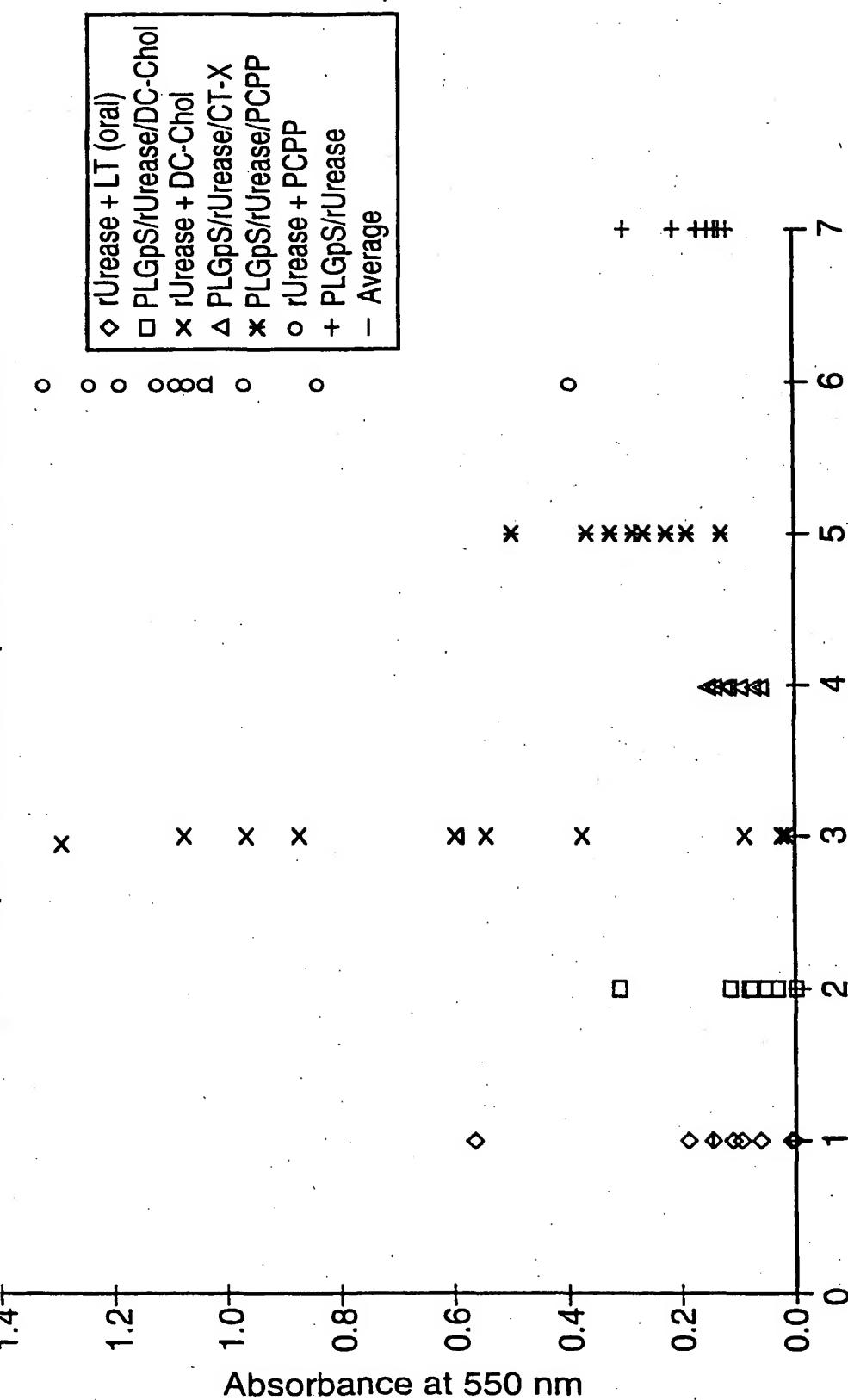


FIG.21A

Protection Study - Challenge with *H. Pylori* (Day 85) on Mice Immunized Orally with
PLGpS/rUrease Microparticle Formulations

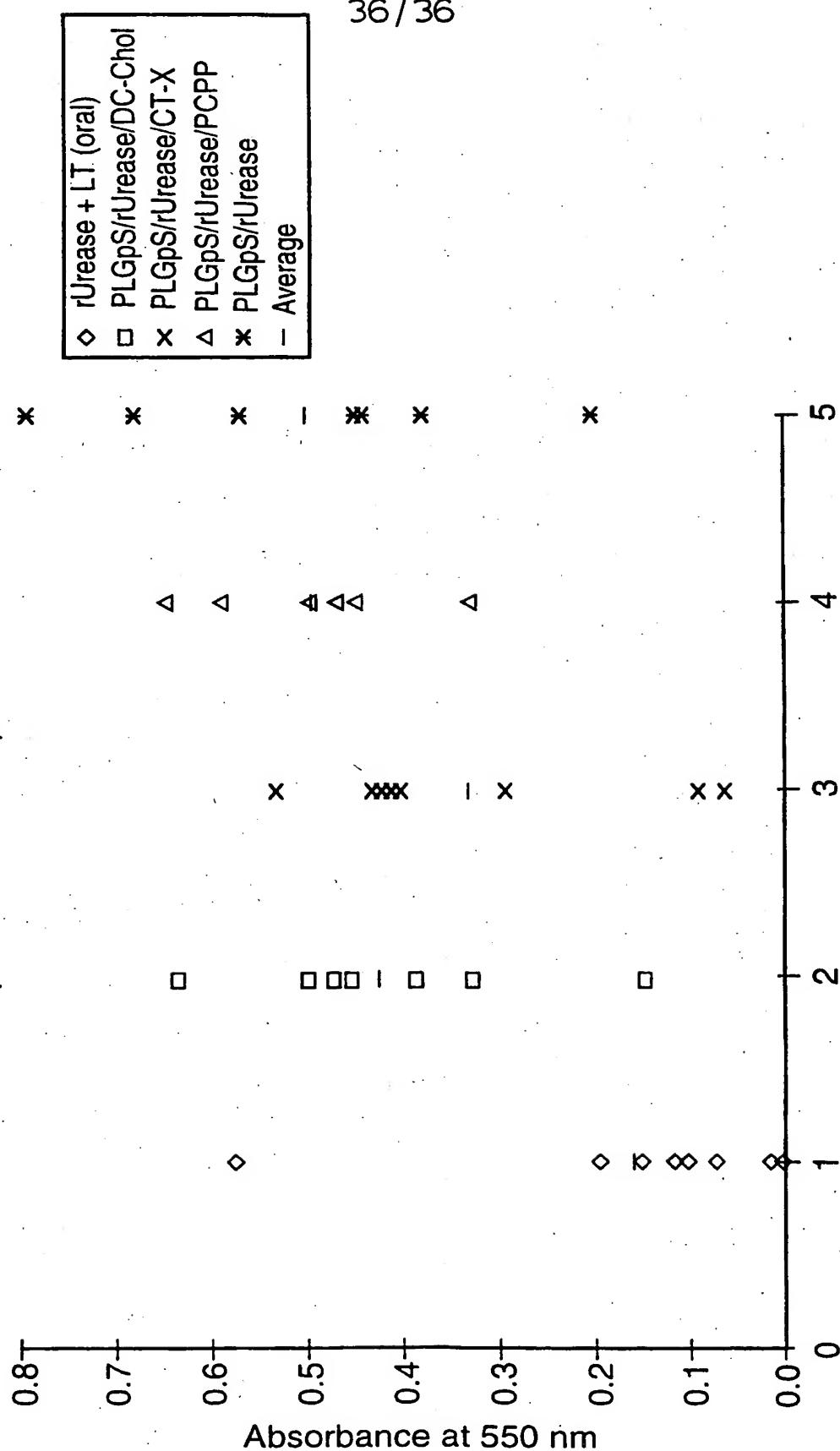


FIG.21B